HIT Policy Committee
Final Transcript
March 7, 2012

Presentation

Mary Jo Deering – ONC – Senior Policy Advisor
Good morning, everybody. This is Mary Jo Deering from the Office of the National Coordinator for Health IT. Welcome to the 33rd meeting of the HIT Policy Committee. I'll begin by taking the roll. Farzad Mostashari? Paul Tang? Madhulika Agarwal?

Joseph Francis – Department of Veterans Affairs – Associate Director, Health Services Research
EHR Francis here for Dr. Agarwal.

Mary Jo Deering – ONC – Senior Policy Advisor
David Bates? Christine Bechtel?

Christine Bechtel – National Partnership for Women & Families – VP
Present.

Mary Jo Deering – ONC – Senior Policy Advisor
Neil Calman?

Neil Calman – Institute for Family Health – President & Cofounder
Here.

Mary Jo Deering – ONC – Senior Policy Advisor
Rick Chapman?

Rick Chapman – Kindred Healthcare – Chief Administrative Officer/CIO/EVP
... Rick Chapman.

Mary Jo Deering – ONC – Senior Policy Advisor
Adam Clark? Patrick Conway?

Patrick Conway
Here.

Mary Jo Deering – ONC – Senior Policy Advisor
Art Davidson?

Art Davidson – Public Health Informatics at Denver Public Health – Director
Here.

Mary Jo Deering – ONC – Senior Policy Advisor
Connie Delaney?

Connie Delaney – University of Minnesota School of Nursing – Dean
Present.

Mary Jo Deering – ONC – Senior Policy Advisor
Paul Egerman?

Paul Egerman – Software Entrepreneur
Here.

Mary Jo Deering – ONC – Senior Policy Advisor
Judy Faulkner?

Carl Dvorak – Epic Systems – EVP
Carl Dvorak here for Judy Faulkner.

Mary Jo Deering – ONC – Senior Policy Advisor
Thomas Greig? Gayle Harrell?

Gayle Harrell – Florida – House of Representatives
Here.

Mary Jo Deering – ONC – Senior Policy Advisor
Charles Kennedy?

Charles Kennedy – WellPoint – VP for Health IT
Here.

Mary Jo Deering – ONC – Senior Policy Advisor
David Lansky?

David Lansky – Pacific Business Group on Health – President & CEO
Here.

Mary Jo Deering – ONC – Senior Policy Advisor
Deven McGraw? Frank Nemec? Marc Probst?

Marc Probst – Intermountain Healthcare – CIO
Here.

Mary Jo Deering – ONC – Senior Policy Advisor
Josh Sharfstein? Latanya Sweeney? Rob Tagalicod?

Rob Tagalicod – CMS
Here.

Mary Jo Deering – ONC – Senior Policy Advisor
Scott White?

Scott White – 1199 SEIU – Assistant Director & Technology Project Director
I'm here.

Mary Jo Deering – ONC – Senior Policy Advisor
Thank you. Over to you, Farzad and Paul.

Farzad Mostashari – ONC – National Coordinator for Health Information Technology
Let me start by remarking on a study in *Health Affairs* that has gotten a fair amount of media interest in the past few days. The study finds that apparently doctors who order a lot of imaging tests are more likely to have systems that let them view images. That's it. That's what the study actually found, an association between ordering more tests and having systems that let you view tests. It's not a particularly surprising observation. What is surprising are the conclusions and the suggestion that the authors ask whether the federal government's ongoing multi-billion dollar effort to promote the adoption of health information technology may not yield the anticipated cost savings from reductions in duplicative

diagnostic testing. Indeed, it is possible that computerization will drive costs up, not down. So the interpretation obviously helps to grab some headlines, but I want to set the record straight on what the study actually found and what the study actually did.
First of all, the study wasn't about EHRs, much less about the meaningful use of EHRs. It was about electronic viewing of imaging results. In fact, when they looked at EHRs they found, and I quote, "In use of an electronic health record there's been shown no association with test ordering." Also, the study is dated from 2008, and as we know, a lot has changed, and I'll come back to this issue. They also didn't consider some of the things that are part of the meaningful use of electronic health records, and quite deliberately so, decision support, for one, and information exchange.

As an epidemiologist what's probably most remarkable to me is the classic fallacy of association and causality. It could well be that ordering more tests leads to buying image review systems, not the other way around. And as my predecessor David Brailer pointed out in the *New York Times* article, this wasn't a randomized trial; it was reusing the National Ambulatory Medical Care Survey observational study that wasn't designed to answer any questions about cost and actually really wasn't designed to answer questions about associations between EHRs and quality either. And there are many ... like the different populations in the practices, the level of acuity of illness, the level of physician training, the provider's approach to defensive medicine and financial arrangements, probably most importantly, the author's note that physicians who have a financial stake in imaging are more likely to purchase systems with image results capability, and self-referral may be a likely explanation as well. From a clinical and patient point of view, the study didn't answer the appropriateness of the tests. More tests were ordered, but if a test is ordered because an appropriate follow-up for a nodule needs to be done in three months, that's a test we want ordered, and the study wasn't able to look up the appropriateness of those tests that were ordered.

Finally, when we talk about health IT being the foundation for improving quality and safety and reducing healthcare costs, it's not going to come about by people ordering more or fewer lab tests. The big savings are through improvements in the coordination of care, in reducing unnecessary and harmful complications and hospitalizations, and providers who are embracing new delivery systems and payment systems, like accountable care organizations and patient-centered medical homes, know full well that you really can't succeed without a foundation of health IT. Of interest, there were some settings where actually even image viewing resulted in a decrease in test ordering, integrated delivery networks, and community health centers where the incentives are appropriately aligned. I think despite the power of anecdote and headlines making an impact on our consciousness, we have to be careful to look at the evidence, systematically, not anecdotally, not what's newsworthy, because as the old song goes, if a dog bites man that's not news; if man bites dog that's news. Well, what does the systematic review of the evidence show? And the systematic review of the evidence shows that electronic health records have the ability to give providers the tools to power to effectively improve quality and reduce cost.

This is one study, and it's a brief flurry of interest in, I think, appropriately the larger question of, yes, we are succeeding in making progress on health IT, that part is no longer, I think, in question. But appropriately the conversation is now focused, and I think appropriately will increasingly be focused on, what do we make of that progress, how will we as a country, how will providers and hospitals and vendors and industry and academics and patients, how will we use the progress? And that is where at least as great a challenge lies for us, is how do we make effective use of these tools? And I see meaningful use as just another tool.

At HIMSS I was struck by how some of the more basic even aspects of meaningful use, how much learning there is yet to be done on making meaningful use of even some of the simplest meaningful use requirements, collecting and managing a problem list, we heard from a community of medical informatics specialists about how some have used that as a tool, have used the active problem list in the hospital as a foundational, critical aspect of communicating between each other and with the patient, what are the problems this patient has during the hospitalization. We also heard from other hospitals and providers, who in many ways are quite advanced systems, about how their use of problem list was check the box, that maintaining an active problem list was not yet something they used other than to qualify for the meaningful use incentive payments. Walking the floor I saw electronic health records that had their usual way of collecting smoking status or any way the provider wants to collect smoking status and then there

was a separate form that you have to go and open up to collect smoking status the meaningful use way so that you would qualify for your meaningful use payment. No wonder providers are saying that meaningful use is adding work and not making sense to them. It's what you make of it. And we have a lot of learning to do to make effective use, to make meaningful use of meaningful use. But that's the conversation we're having now, and it's a lot better conversation than what we were having before. As we talk about Stage 2 of Meaningful Use there's a lot of continuity, there's a lot of staying the course, because it just takes time, it just takes time for vendors, for providers, for us all to make that most meaningful use of the tools that we have. Thank you.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
That's hard to follow. Thank you, Farzad, really, one, for setting the record straight; and two, for re-articulating the vision the program, the goals and the meaningful use of the tools that can help us all achieve the ..., and that's what we've been here for, and that's what this group, this committee's really been dedicated to, and all the hundreds of volunteers that support this process. We're on the right track and we're just trying to push on, like you suggest. I guess I have to seize the moment in terms of your talking about how part of the process has caused some hard wiring of some of these check lists and some of these inadvertent going to other places, and we're trying to address that issue as well as part of our recommendations. But thanks again for those words and really for setting the record straight as far as this latest associational study.

We are spending the whole morning on meaningful use because we have a really important update. As you all know, not only was the NPRM displayed a week or two ago, but it's now in the federal register so that it is open season on comments. Rob Anthony's going to take us through an overview, a very comprehensive overview, of how they put together the NPRM, they at CMS and ONC, and then will finish by updating us on the progress for Stage 1. Rob, take it away, please.

Robert Anthony – CMS – Health Insurance Specialist
I think actually Rob Tagalicod wanted to make some opening remarks.

Rob Tagalicod - CMS
Great, thank you, Rob Anthony, and thank you, Paul, for the opportunity to update you on meaningful use and the NPRM. I have to say, first, it's heartening to hear Farzad say that and it is to set the record straight, and in line with that I'd like to give a few remarks, as well as a few thanks to the committee. Indeed, we've come a long way on this journey to the publication of the NPRM, or the Notice of Proposed Rule, for Stage 2 of the EHR incentive programs, and probably no one knows that better than the people on this Policy Committee, so again, thank you. I want to extend my personal thanks to Paul Tang and the members of his committee for all of the hard work and the thought you put into this process. As you'll see in our upcoming overview of the NPRM by Rob Anthony, CMS relied very heavily on the recommendations of the HIT Policy Committee in our proposed objectives and we relied also on the public feedback we received from stakeholders through this advisory committee, listening to the testimony of hospitals and physicians about their experiences as they attempted to implement meaningful use, hearing from vendors discuss the challenges of creating technologies and bringing them to providers and attending to professional associations about the challenges facing their members as we move forward on this path toward meaningful use. All of this has been not only instructive, but invaluable to CMS as well as to ONC, and I think we're really taking a big step forward, but again a continuous step forward, with this Stage 2 proposed rule, a step beyond basic data collection and into a future of more robust exchange of information, and that's what we're all about.

There are some new ideas here, some new objectives that encourage the exchange of information not only between providers, but between networks, between organizations, and between different technologies. With objectives like a summary following transitions of care, we're looking toward a healthcare system that is infused with the information that is critical to providing the best care possible for patients, we're looking toward a healthcare future where information isn't anchored to a particular organization, and where information can be shared outside of proprietary systems. It is where the information follows the patient, and I think you would all agree, instead of just the product or the provider. And with objectives that provide for online access to download and transmit information and secure

messaging between patient and provider we are looking to a future where the patient can take an active part in his or her own healthcare.
Now, on the provider side, we are proposing what I think are some critical alignments with quality measurements, both aligning the measure sets that are reported under the various CMS quality improvement programs, as well as aligning how those quality measures are reported, so that the goal here is for providers that participate in multiple CMS programs, whether it's the physician quality reporting, inpatient quality reporting, and the Medicare Shared Savings Program, i.e. accountable care organizations, can report the same measure once and not have to submit multiple measures for multiple programs. I truly believe that we are proposing for Stage 2 something that is moving us forward or toward the end goal of improving the quality of care, improving outcomes, and ultimately reducing the cost of healthcare. We won't realize those goals all at once, and even the objectives we have proposed for Stage 2 won't bring about an immediate change, but I believe we are laying the foundation we need to build the kind of infrastructure that will help us achieve these goals. So we're asking everyone here on this call, providers and vendors as well, to make an effort to engage with the spirit of meaningful use.

Recently my office received an e-mail from a provider who complained that the EHR incentive programs did not encourage the meaningful use of technology, and I said, huh. He said that on the contrary we were only encouraging the endless reporting of information and that his office spent too much time generating paper to meet the meaningful use objectives, printing out summaries for patients that didn't need them, and having patient education materials just to meet the 10% requirement. I said, but that's what we don't want to do. Meaningful use is not about that. The Medicare and Medicaid EHR incentive programs aren't about recording random information, but information that is important and relevant to a patient's ongoing care, and we don't want providers to just print out office visit summaries to meet a measure, but to use the opportunity to give patients valuable information about improving their health, about next steps in their care. We want the education that providers give to their patients to be useful, again, relevant, and helpful.

At the same time, CMS recognizes that meaningful use has to give doctors and nurses and hospitals the flexibility to do what they do best, provide excellent care for the patient. The objectives we are proposing are meant to encourage the exchange of information and ongoing communications between providers, between providers and patients, so that together we can improve the quality of that care. Meaningful use, the objectives we propose and the thresholds for those objectives aren't meant to be the entire framework for patient care, but a starting point that providers can use, and we hope that providers will not only try to meet the measures of those objectives, but also think about the spirit in which those objectives were proposed by the HIT Policy Committee, by the Meaningful Use Workgroup, and by their professional colleagues.

We've tried to make this proposed rule reflect everyone's feedback and experience because we truly believe that those goals of improving care and reducing costs will only be achieved when we are all able to work together. So again, I would encourage everyone to look at the Stage 2 proposed rule and provide comments to CMS, not only on what you think needs clarification or what could be done better, but also on those proposed objectives that you think work and are important. We often hear about what doesn't make sense, and that's important feedback to us, but it's just as important for people to make their voices heard in the comment process about what they like in this proposed rule. And I'd like to turn it over to Rob Anthony to talk a little bit more in detail about what we are proposing. Thank you.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Thank you, Rob, for some very important and inspiring comments. I just want to make one comment, really, I think on behalf of the committee, I think over this past almost three years we have really felt this has been a partnership with ONC and CMS, it's been a partnership in helping to craft some of these policies to work with the public, to get them as good as they can be, and I am positive that the heart of both agencies are totally into the ... that you both described, so thank you for working with us and letting us work with you on these policies. I appreciate what we've done in the past and I look forward to the journey ahead. With that, we'll turn it over to Rob Anthony to update us on NPRM for Stage 2.

Robert Anthony – CMS – Health Insurance Specialist

Thanks. For those of you who had tuned into the Meaningful Use Workgroup yesterday you're going to get a little bit of a repeat here. This is the same type of overview. I hope everybody had coffee this morning. Others, I hope it is instructive. As Rob Tagalicod said, this is a proposed rule. We have links to the CMS meaningful use rule as well as to ONC's 2014 certification and standards rule. These are the display rulings, at the time that we put this together it had not yet published in the federal register, which came out this morning, and we'll update those links. And also for folks that are subscribed to our Listserv, which you can get to through the EHR incentive program's Web site, we'll be sending out an update link with the published federal register link, which means that with the official publication we are officially in a public comment period. That public comment period will go through May 6th. We encourage people to comment either electronically, written, you can hand deliver them if you really want to come out to the CMS campus in Baltimore, but the easiest way is www.regulations.gov. It is the easiest way for you. It is also the easiest way for us, where we're able to sort that a little bit faster to group all the comments together and see what the consensus is.

We're going to review some of this, but I just wanted to call attention to everything you'll really find in the proposed rule. There are some minor changes that we are proposing to Stage 1of Meaningful Use, and we'll review some of that. There are of course the new objectives for Stage 2 of Meaningful Use, new clinical quality measures, which I actually am not going to review the specific CQMs here. I encourage people to take a look at the NPRM for that information, there's an extensive list. I am going to talk a little bit about the proposed clinical quality measure reporting mechanisms that we have for Stage 2, or really for 2013 and 2014, not necessarily specific to Stage 2. There is some information on the appeals process for the entire EHR incentive programs in this NPRM. I'm not actually going over that specific detail, but it outlines the framework for the different appeals. I will talk a little bit about the Medicare payment adjustments and also the hardship exceptions, the categories that we've proposed, and one particular item that we're asking for discussion about. There are some minor Medicare Advantage program changes and a couple of minor Medicaid program changes that we'll talk about at the very end.

As everybody from HIMSS knows, I'm obligated to include this arrow slide in every single presentation that we ever do. It is maybe getting old, maybe we need to do a rebrand of the arrow, but it does nicely illustrate the trajectory of the program, that this really is an escalator, as Farzad often says, a movement forward. With Stage 1 we were really at the data capture and sharing process. It was about putting technology in place and getting people used to using it. We're now moving into Stage 2, and the idea is advanced clinical processes, and certainly on to Stage 3, where the ultimate goal, as Rob Tagalicod had expressed, is the idea of improving care and improving outcomes.

Although we had aimed for February 2012 for the publication of the proposed rule, we did at least manage to do display of the proposed rule in February, publication today, and it should keep us on the same Stage 2 timeline, so we're aiming for a summer 2012 final rule. I was asked in the Meaningful Use Workgroup what summer 2012 really meant; was it early summer, was it later summer? It is probably later summer. The timeline, as many people know, we do have a proposed delay here. The secretary had announced the intention to delay earlier. We're moving Stage 2. Essentially the earliest implementation of Stage 2 requirements will be in the beginning of either fiscal year '14 for hospitals, which is the October 1, 2013 date, or the beginning of calendar year 2014 for eligible professionals. This really only applies, as you'll see, to folks who first demonstrated meaningful use in 2011. I don't know how many people were familiar with the smaller but somewhat similar chart that we had in the Stage 1 final rule, but essentially what we had proposed there would have required folks who had begun meaningful use in 2011 to start using the Stage 2 requirements in 2013. That, as everybody knows, would not have given vendors very much time between final rule publication to develop the technology needed for it and certainly wouldn't have given providers very much time to implement it, so we have provided an extra year essentially, in the shaded area you can see, for folks who first attested in 2011 or first attested to meaningful use in 2011, for an extra year essentially at Stage 1.

One thing that I do like to call attention to here, because it has come up several times as we talk to people about Stage 2 and requirements people understandably want to know well, does that mean that once Stage 2 kicks in that that's where I start this process? And in fact, it's always been the intention, and we outline here that you begin at Stage 1, you have your first year of meaningful use is a 90 day reporting period at Stage 1 requirements, your second year of meaningful use is a full year, either calendar or fiscal, depending on whether you're a professional or a hospital at Stage 1 requirements, and then you move on to full year at Stage 2 and then Stage 3 requirements, and we've outlined that here.

Everybody here is obviously familiar with the core menu structures, so I don't need to review it. We did try to maintain the same core menu structure moving into Stage 2. We did also try to maintain roughly the same number of objectives. There was a concern about adding unnecessarily to the burden for providers. We did this through a combination of combining some objectives that were in Stage 1. There are some objectives, and we'll cover this a little bit later, that we're proposing to eliminate. We did move, as the HIT Policy Committee recommended, most of the Stage 1 menu objectives into the core, as we had also signaled in the Stage 1 final rule. A handful of the new objectives ended up in core for both professional and hospitals, and then we put the remaining into the menu. So we are proposing here 17 core objectives and 5 menu objectives, of which EPs would have to meet 3. For hospitals 16 core objectives and 4 total menu objectives, of which hospitals would have to meet 2, for a total of 18.

Just in general, one of the things that I like to outline here is we did a little bit of change in the structure of how the menu objectives work. As you may recall from Stage 1 we went with a deferral idea, with the idea being that all of those menu objectives would end up in the core as we moved into Stage 2, so if you elected not to meet those particular menu objectives you were deferring them essentially until the next stage. It turns out that the deferral concept was very difficult for folks to grasp, so we have moved towards a straight selection process on it. One of the things that we changed in that process was the notion of exclusions. Currently in Stage 1, technically you can select a menu objective that you could exclude yourself out of, which means there is the possibility that EPs or hospitals could select something and not actually have to meet it, even though there were other menu objectives that they could be meeting. We've closed that, exclusions can no longer count in meeting one of the menu objectives. However, that doesn't mean that if you have more exclusions than the required objectives that you would be prevented from meeting meaningful use. It's simply that if you put a menu objective into your cart, if that is what you choose as one of your options and you attest to an exclusion for it you're also attesting that you are unable to meet any of the other menu objectives.

We are moving denominators to all patient encounters for eligible professionals. Some of you may recall that we had split the denominator so that in Stage 1 you could base some of the objectives on all patient records or just those patient records that were maintained within certified EHR technology, obviously with the theory being that for some objectives you had to keep at least 80% of patient records within technology and that meant essentially that your denominator could end up being that 80%. That's no longer the case. In Stage 2 we're proposing that all of the denominators are based on all patient encounters, with the thought that folks who are moving into Stage 2 would no longer be maintaining separate systems ... transition ... . We're not changing the notion of the 50% threshold for patient encounters at locations equipped with certified EHR technology. Folks may remember there's a section about practicing in multiple locations and you do have to have a minimum of half of your EP outpatient encounters, it obviously doesn't include inpatients and emergency room encounters, but your outpatient encounters must occur at locations that are equipped with certified EHR technology, and that can be from a combination of practices as well. Then as we did in Stage 1, from our perspective meeting meaningful use, achieving the objective is meeting the measure of that particular objective, so there's really no change in that area.

As we go through this we've bolded what's been changed from Stage 1 in these particular objectives. It's probably less clear on the larger slides and a little bit clearer on the smaller slides, but you'll see that within particular objectives, some of these recording objectives, we've bolded the 80%, that's really the threshold that has changed. As we go into another slide you'll see that for new objectives the entire objective has been bolded. We tried to show what was new. Obviously we moved, as indicated, in the Stage 1 final rule for CPOE to 60%. We did include laboratory and radiology orders as part of that. The

threshold for ePrescribing went up, and I'm sorry, actually this threshold has to be corrected, we actually proposed 65%. This is likely from an earlier iteration, and this is what happens when everything comes down to the wire, I'm afraid.

The recording objectives, we moved from a threshold of 50% to 80%. You will notice, many people have noticed, that there are certain recording objectives that are not there, recording problem list, recording medication list, active medication list, and recording a medication allergy list. We did eliminate those objectives. Really, we combined those objectives with the transitions of care summary objective. EPs will essentially need to maintain medication lists, problem lists, and medication allergy lists for their patients in order to be able to meet the threshold for those summaries of care, as we described in the NPRM, partly it was because we were seeing folks use those at a very high level and partly because we were trying to build in more robust information into some of those. We did move with clinical decision support to implementing five clinical decision support interventions based on clinical quality measures that you are reporting on.

There is an exception. We know that there are going to be some EPs who don't have clinical quality measures that are applicable to their workflow, in which case five clinical decision support interventions that are relative to your practice workflow are acceptable. We did combine clinical decision support with drug-drug and drug-allergy interactions, partially because there was a fair amount of confusion, and still actually the number one FAQ accessed on our Web site is, "Can I use my drug-drug and drug-allergy alerts to meet my clinical decision support requirements?" And the answer of course is no, they are separate objectives. But rather than leave them as separate objectives and continue with the confusion, we made two measures here, one of which is the five clinical decision support, one of which is enabling drug-drug and drug-allergy interactions for the duration of the reporting period.

Incorporating lab results, we moved obviously from menu to core and raised the threshold, generating patient lists and moving from menu to core patient reminders specifically for preventative and follow-up care. We have moved from the notion of providing an eCopy of health information to the idea of providing online access to health information, online access being the ability to view, download and transmit that information. And we have added the extra measure of 10% of patients actually accessing it. We call attention within the NPRM to the fact that this is a movement away from where we were in Stage 1, where essentially the action of a patient could not disqualify a provider from meeting meaningful use. In this case we think, as we say in the NPRM, that EPs are in a unique position to encourage patients to actively participate in some of these, and as you'll see, with secure messaging we placed a similar requirement on that. We did move providing office visit summaries up from 3 business days to 24 hours, moving education resources from menu to core, as I mentioned, a requirement of more than 10% of patients sending secure messages to their EP. This, again, is a requirement for patients to use the technology.

Medication reconciliation we did propose at a higher threshold than was recommended. We have seen a, as we'll go into in Stage 1, a pretty high level of compliance with that, really probably one of the most, well certainly page-wise lengthiest objective that you'll find, but certainly I think in terms of robust exchange of information providing summary of care documents for transitions of care. Folks may remember from Stage 1 essentially the information that you were required to transmit for transitions of care were any diagnostic test lab results that you had available, any problem lists, medication lists, mediation allergy lists. Those are still required as part of this, but we placed a number of additional fields into that transition of care that we expect should go along with that transmission. I won't go into that list now, it is a fairly lengthy list, but it includes demographic information, patient information, and care plan, things like that. I would encourage people to take a look at that.

The other part of this is really that 10% of these summary of care documents sent after a transition of care need to be sent electronically, and I would encourage people to take a closer look at that section. We do have a lengthy discussion of what that actually means. It not only means electronic transmission, it means electronic transmission to a provider with whom you do not have an organizational affiliation and who does not share the same technology as you. And it's not necessarily the same instance of technology, it is actually a different vendor altogether, so if you are both on Epic 9.5, even though you may have separate licenses in separate organizations that would not contribute to this 10% we were

really looking for you to transmit from Epic to McKesson, and the idea here is really to move outside of closed systems and be able to transmit, as Rob Tagalicod was talking about, in a very open system across organizations and vendors. We are moving in Stage 2 for both EPs and hospitals from the idea of a test of transmission of public health data to the idea of successful ongoing transmission to public health agencies. In this case for EPs we only moved transmission of immunization data to the immunization registries to core and left EP syndromic surveillance in the menu. There are not as many agencies that accept syndromic surveillance data from EPs at this point in time, so we didn't feel like it made a lot of sense to move it to the core. You'll see that we moved all of the public health agencies' objectives from menu to core for hospitals.

Then finally, as we have in Stage 1, conducting and reviewing a security analysis, with the emphasis on privacy and security.

These are the five menu objectives. You can see that most of them are completely bold there, mostly all new, 4 out of 5 of these are new. The EP will have to meet 3 out of 5 or exclusions, therefore obviously the imaging results accessible through certified EHR technology we do go into a little bit of a discussion that it does not necessarily need imaging housed within certified EHR technology. It can be a link from EHR technology to another system that contains those imaging results. Recording family health history for more than 20% of patients, again, syndromic surveillance data for EPs we did leave in the menu, and then we did add successful ongoing transmission of cancer case information, or successful ongoing transmission of data to a specialized registry for specialties. Obviously there are exclusions for those if you do not normally report cancer case information or data to a specialized registry as part of your workflow.

I won't go through each of the hospital core objectives and menu objectives. They're substantially very similar to what you'll see on the EP side. The same issue with reporting objectives moving into the problem lists, medication lists, moving into the summary of care, clinical decision support, obviously hospitals have a set number of clinical quality measures that we're proposing and would have clinical quality measures in which to base those. Really new here is the use of electronic medication tracking, eMAR implemented and used. We placed a percentage on this for more than 10% of medication orders. There was some discussion, and there is, in the NPRM, about how that can be implemented, and really rather than talking about implementing in a particular place in the hospital or rather than putting a count on it to be consistent with what we have with other numerators and denominators and allow flexibility for the hospital in how they choose to implement, we placed a 10% threshold on those medication orders. Again, number nine is similar to what we saw for EPs with online access to health information and then 10% of patients actually accessing that information. Summary of care transitions, here also, again, 10% sent electronically outside to providers without an organizational affiliation with a different technology, and 13, 14, and 15 are the successful ongoing submissions to public health agencies. And then, finally, 16, again, conducting and reviewing security analysis.

These are the four menu objectives; three out of four of these are new. They're similar to what we have on the EP side, incorporating imaging results or having imaging results accessible through a certified EHR, recording family health history. We did leave recording the indication of advanced directives in the menu objective. It wasn't in the menu objective set in Stage 1. The feedback that we've gotten, we do have some discussion of this in the NPRM, was that there's some variance by state as to actually what legally can be included, what counts as a legal document, what counts as an actionable document. And I think until we have some more clarity about what that means, we didn't feel like it was the right time to move from menu to core with that. And then, finally, ePrescribing for more than 10% of discharge prescriptions as the fourth menu objective for hospitals.

We have proposed within this some of the changes to some of the Stage 1 objectives based on some of what we've seen with the program so far and certainly feedback that we've gotten from both vendors and providers as we've gone through this. As some of you know very well, there's been a great deal of confusion about computerized provider order entry, the denominator and how it has been defined. In this case currently it's unique patients with at least one medication in their medication list. There's a great deal of confusion about what the time period was on it. A lot of people thought that the medication had to

be ordered within the EHR reporting period for those patients to be counted in the denominator. It does not. We never time limited it. Other people thought that the EP had to be the one who had ordered the medication that was in the patient's medication list for that patient to count in the denominator. That was also not the intention. We found ourselves in a little bit of catch-22 for providers who don't technically meet the exclusion for CPOE, which is that they order fewer than 100 prescriptions during the reporting period, but they don't order frequently enough to really do the type of ordering to meet these thresholds. So we did issue some sub-regulatory guidance in the form of FAQ that's provided for folks that order infrequently but don't quite meet that exclusion.

As we're moving into Stage 2 we are proposing some retroactive changes for CPOE for Stage 1, switching that denominator from unique patients with at least one medication in their medication list back to number of orders during the EHR reporting period, so it would be number of orders and then your numerator would end up being the number that are CPOE. This would be optional in 2013, and the reason these would be optional in 2013 is that there are providers who are going to already have this technology that works in the old way. There may not necessarily be patches that go back and allow them to count in the way that this is done, there may be vendors who do not want to issue new or update reports on this, so we don't feel that we can require people to report on this new method, but it will be an option for them in 2013. Moving to 2014, that's going to be the requirement for Stage 1, and the ONC rule on standards and certification reflects that as well.

Vital signs, we are proposing a couple of changes here. We're moving age limits, currently it's age 2 for both blood pressure and height and weight, and we're proposing moving to age 3 for blood pressure and no age limit for height and weight, feedback about how different workflows work and different specialties and how different information might be needed and recorded, again, this is optional in 2013, but required in 2014. I think more interesting to people is probably the exclusion for vital signs. Currently that exclusion is that if all three of the elements of blood pressure, height and weight are not relevant to your scope of practice you can be excluded from reporting on this measure. We had a significant amount of feedback from providers that they indeed might record blood pressure but might not record height and weight, or vice versa, so we are proposing that there be a separation in those exclusions so that you can essentially claim an exclusion from reporting blood pressure, or you can claim an exclusion from reporting height and weight. You obviously couldn't record an exclusion from all three, again, optional in 2013 but required in 2014.

A particular objective that we had a great deal of consternation around was the test of an electronic transmission of key clinical information. People were confused about what electronic transmission actually meant. We issued a sub-regulatory FAQ that clarified that for folks. It was consistent with what we had proposed within Stage 1, or what we had finalized in the Stage 1 final rule, but there needed to be some additional clarity because there were folks who thought that the transmission of an electronic file using physical media, such as USB or CD-ROM would be acceptable as electronic transmission. I actually genuinely had people who asked, well, if I used my computer to electronically print the documents, then technically that's electronic transmission, isn't it? It's not. There was a question of then what exactly the transmission method should be. We also issued some guidance about that. There was a question of what do I do if I don't have all of those elements and so on and so forth. So there was a great deal of consternation and really this was meant to be a test.

The measure is not whether you were successful at the test; the measure is simply that you conducted the test. Because we are really moving to the idea of a more robust information exchange in Stage 2, we are proposing to remove that objective entirely effective in 2013. Because we're moving from the electronic copy of health information upon request, moving from electronic access to health information to the objective in Stage 2 of online access, we are proposing a replacement objective for these two objectives in Stage 1. This would be beginning in 2014, so that there is not essentially in the 2014 certified EHR a split of different technological capabilities, everybody would use the same abilities, which would be to provide the patients the ability to view, download, and transmit their health information online, basically online access.

Then finally, effective in 2013 we are proposing to add "except where prohibited" to public health objectives. There are some areas where specific submission of information may be prohibited by local or state guidelines, and it was never our intention to put people in that catch-22 where they were required to submit and could not submit.

I'm going to go briefly through some of the clinical quality measures area. Patrick, I trust you'll jump in if I say anything false or if you want to add anything that you think would add a little bit more context to things. One of the things I do want to draw attention to is that we removed as an objective, a meaningful use objective, the reporting of clinical quality measures. That does not, however, mean that reporting of clinical quality measures is optional or not required. It simply seemed that it was already a requirement and there really was no need to make it an objective and have people take a box on it when we would know you're reporting clinical quality measures when you in fact report the clinical quality measures. So that's really the only change in that respect.

We do keep the same type of reporting periods for EPs and hospitals, depending on where you are in meaningful use, whether you're at first year of meaningful use and so on and so forth. Some of that may be a little bit different depending on what you participate in. I think some folks are probably aware of our pilot program that we're proposing and because of how the submission pilot program works you may have to submit on a different deadline than you would for meaningful use. But that is a matter of submission through that particular means. It's not a change for the requirement for meaningful use.

As Rob had talked about, the real emphasis here in Stage 2 is alignment, and I won't go through, again, all of the measures. I think we're proposing a number of measures, as we did in Stage 1, and we will likely finalize to a particular list based on feedback and what we know from Stage 1, but there really was a commitment on our side to aligning quality measures and reporting across programs. There are a number of providers who are participating in different CMS quality improvement programs, whether that's ACOs and PQRS, and IQR for hospitals, there are some CHIPRA measures for Medicaid, there are a number of different quality improvement programs. We really have attempted to align those across all of the ECQMs essentially, eSpecified Clinical Quality Measures. And then really the idea was to minimize multiple submissions as much as possible. We may not, with this proposal, be completely down to a single submission for everything, but we're proposing something that I think gets pretty close. Obviously the idea here is partially to lessen provider burden. It is also to establish and harmonize what the data exchange priorities are for us and really across all of the quality measurement programs that we have to establish what it is that we're trying to measure for those quality of care and better health outcomes.

I want to talk very briefly about some of the CQM priorities. These were what led to the thinking as we selected CQMs for proposal for Stage 2. The reason these are important is because they feed into a domain concept that you'll see in a couple of slides, obviously making care safer by reducing harm, ensuring that patients and caregivers were engaged as partners in their care, promoting communication and coordination of care, whether it's communication between providers or between providers and patients, and promoting effective prevention and treatment practices for leading causes of mortality. So you'll see CQMs here that focus on cardiovascular disease, diabetes, and so on, working with communities to promote best practices for healthy living and making quality care affordable to everybody, patients, families, employers, everybody.

So we organize them according to these domains. There are patient and family engagement, patient safety, care coordination, population and public health, efficient use of healthcare resources, and clinical processes. I wanted everybody to be aware because this is the general outline of what you're going to see in the proposed rule. We're moving from the notion of what you're seeing in the 2010 final rule, which is 3 core, 3 alternate core, plus 3 menus selected from a remaining 38 clinical quality measures, a total of 6 or 9 if you end up with alternate core for eligible professionals, there's a set of 15 for eligible hospitals to a couple of different proposals that you're going to see. One is, there's one notion of 12 total clinical quality measures for eligible professionals with at least one from each domain, there's a proposal for 11 core clinical quality measures with an extra selected from a remaining menu set, there is a PQRS group reporting option that is proposed, we'll talk about that in a second, and for hospitals there are a total of 24 that are proposed. The important thing to draw attention to here is that this isn't necessarily a Stage 2

proposal. This is a clinical quality measure proposal. You'll see this aligning with what's in ONC's 2014 certification. In the same way as we proposed some changes to the Stage 1 objectives to align with where the technology is going for Stage 2 we're proposing some changes to clinical quality measures for everybody who submits clinical quality measures. That way we can keep everybody on the same page and up to date with what is being submitted.

Essentially CQMs under this proposal would remain the same through 2013. We would update electronic specifications for those CQMs. And in 2013 you would have the option, obviously if you're Medicaid you're going to continue to submit to the state however they have electronic submission to the state. There will still be the option for attestation for folks, so essentially what we have now where you go to our Web site, you would enter a numerator, a denominator, exclusion information directly from what's output from your EHR. You can also continue to participate in the 2012 electronic reporting pilots. Essentially this is our stand-in while we are standing up technology for 2014 for electronic submission under the various electronic submission reporting methods that we're proposing for CQMs. Beginning in 2014 we have some proposals for the 12 CQMs, one from each domain, 11 core plus 1 menu CQM options, Medicaid, again, through whatever your state has decided for electronic submission. We're also proposing here, this could be an aggregate XML-based format, so essentially we would give you a file format, your EHR would spit it out that way, and you would send that file format to us and we would upload it.

Again, we're also proposing a PQRS reporting method, and this goes back to the idea of alignment. There are a number of EPs who are participating in the Physician Quality Reporting System who are also participating in the EHR incentive program. So essentially by aligning the measures with PQRS as we move forward a submission through PQRS would essentially be deemed as having submitted clinical quality measures for the EHR incentive program.

There are some options for group reporting that we are proposing, again, EP satisfactorily reporting for PQRS through a GPRO option. I know that we're starting to get into acronyms here and really the important thing to understand is that GPRO is the technology that we use the system that we use for submitting PQRS group aggregate numbers. There is also, if you are submitting clinical quality measure data or quality measure data for the Medicare Shared Savings program you would essentially be deemed as having submitted quality measures for the EHR incentive program. Then there's the proposal for two or more, however many EPs, each of them who have a unique provider identifier but they're all associated to the same group TIN, Tax Identifier Number, would be able to submit as a group as well.

Hospitals are similar, we're moving to 24 CQMs. As I said, there's a proposal for an aggregate XML-based format that would be sent to us and uploaded electronically. In a manner similar to what we have, in the 2012 electronic reporting pilot is something that we've proposed. It doesn't exist now. A lot of hospitals submit for the inpatient quality reporting, and we're essentially talking about building a system that is similar to the way that people would submit now for the electronic reporting pilot but for hospitals.

Believe it or not, we're actually coming into the home stretch. Payment adjustments, as most people will recall, the HITECH Act stipulated that there would be payment adjustments for providers who were eligible for the program but did not participate. This is statutorily required. We did talk about those payment adjustments in the Stage 1 final rule, but it is here in the Stage 2 NPRM that we really outline our proposals about the timeline for those and also about hardship exceptions. I do want to draw attention to adopt, implement, upgrade for Medicaid. As folks know, in the first year providers can get a payment through Medicaid for adopting, implementing, or upgrading their EHR technology. That does not count as meaningful use. It is an AIU payment, not a meaningful use payment, and the law is pretty specific that you need to be a meaningful user of EHR technology to avoid payment adjustments. So if you are an EP or a hospital who is eligible for both Medicare and Medicaid then you're going to need to be demonstrating meaningful use along this timeline in order to avoid payment adjustments. I will say that if you are demonstrating meaningful use as a Medicaid EP through your state, that's going to be deemed for Medicare so it's not as if you have to participate in those or report to them.

I'm going to go through these very quickly. This is just an outline of how the adjustments were applied for EPs or how they were spelled out in the law. Essentially it is a percentage of your Part B physician fee schedule payments, so if you had a $200 Part B service that you were entitled to receive you would essentially receive 99% of that Part B allotted charge of $200 in 2015 if you are not a meaningful user, and so on and so forth it goes down. You'll see the same thing for sub-section D, hospitals, but the percentage in this case, just so that we can be really confusing about it, is a percentage decrease in the percentage increase to the inpatient perspective payment system payment rates that the hospital would otherwise receive. There's a yearly IPPS increase that a hospital should receive and you would, as a payment adjustment, have a levy against that increase. Critical access hospitals are reimbursed on the basis of reasonable cost. Absent payment adjustments, that reasonable cost reimbursement is 101%. The loss spells out that if the critical access hospital is not a meaningful user that the following schedule of reductions to their reasonable cost reimbursement will take place.

When we looked at this the law specifies that if you are not a meaningful user payment adjustments would be assessed beginning in 2015, which means that we had to figure out how can we look at January 1, 2015 for eligible professionals, October 1, 2014 for hospitals, and begin applying those penalties. Well, we need to have a look back period essentially, and that's what we proposed in this rule, what periods we would look back at for your meaningful use periods. In other words, to avoid the 2015 penalty we would look at 2013 to see if you were a meaningful user. If you had demonstrated meaningful use in 2011 or 2012 we would expect to see in 2013 a full year of meaningful use. For EPs who didn't demonstrate meaningful use until 2013 you're obviously not going to have a whole year of meaningful use, but the concept is the same, you would have your 90 day reporting period of meaningful use in 2013, we would look for that, and that would avoid the payment adjustment.

Now, there are going to be EPs to demonstrate meaningful use for the first time in 2014. We do need time to be able to not only receive that attestation but process it through systems. We established essentially three months prior to the end of that calendar year it ends up working the same way for hospitals, as we'll see, but it's three months prior to the end of the fiscal year, so essentially if you were demonstrating meaningful use in 2014 for the first time then you are going to have to have your 90 day period within 2014 and you have to attest to it no later than October 1, 2014. That's three months before the end of the calendar year, which means that your 90 day reporting period would have to begin no later than July 2nd. Hospitals work the same way. If you are a hospital who attested in 2011 or 2012 we're going to look for a full fiscal year reporting period of meaningful use in 2013, a 90 day reporting period in fiscal year 2013, if 2013 was your first year of meaningful use. In 2014, just as with EPs you're going to have to have 90 days within that fiscal year. We need some time to process it. You're going to have to attest to those 90 days no later than July 1, 2014, which means that any hospital that is demonstrating meaningful use in 2014 for the first time is going to have to begin their 90 day reporting period no later than April 1st.

We are proposing exceptions on an application basis for the payment adjustments. We've proposed these three categories. The first is insufficient Internet access two years prior to that payment adjustment year, so essentially if you are in an area that does not have sufficient broadband access. Newly practicing EPs, we are time limiting this but if you are an EP, for example, who really doesn't have any history of billing Medicare if you are fresh out of residency and going into practice, for example, you wouldn't have a meaningful use period for us to look back on. We did not want to unfairly penalize people right out of the gate, and so we proposed a two year period for people to be able to set up and become meaningful users. And then finally, for any extreme circumstances, it's a little bit of a catch-all category, but certainly there are going to be unexpected closures, natural disasters. We don't want to penalize anybody for that. We do limit when the applications for those hardship exceptions need to be submitted by and that is July 1st, but we do encourage people to submit earlier.

We didn't propose this exception but we did discuss it and ask for comments. We had significant feedback that there were specialties that faced specific barriers that in combination would constitute a significant hardship. Any one of these might be overcome, but perhaps in combination they make it very difficult for certain EPs to be able to meet meaningful use. One of them is the lack of direct interaction with patients. We did issue a little bit of guidance about this in which we allowed people to define patients

seen by according to what works with their practice workflow. For EPs who don't really do follow-up care with patients, we had a fair number of EPs that fit into certain categories that really did result interpretation, test interpretation for other providers and didn't really do follow-up care with those patients. And then particular business models, practice arrangements where those EPs really would not have any control or influence over whether certified EHR technology would be available within those practices, again, any one of these particular barriers might not constitute a hardship, but we're concerned that the combination of three of them would. We do discuss three particular specialties that we had heard from and are seeking some comments on; radiology, anesthesiology, and pathology all seem to, in the majority, face those three barriers. We're proposing similar exceptions for both sub-section D and critical access hospitals, although we are time limiting new hospitals for one full year of cost reporting period and for critical access hospitals time limiting new critical access hospitals for one year after they accept their first patient.

Just a couple of really quick Medicaid specific changes, we are proposing an expansion of the definition of Medicaid encounter for patient volume calculation, including any encounter with an individual receiving medical assistance under 1905(b) permitting inclusion of patients on panels seen within 24 months, right now it's 12 months, permitting patient volume to be calculated from the most recent 12 months instead of on the calendar year, sometimes we don't have the entire calendar year to calculate on, so the entire 12 months health, and including zero pay Medicaid claims.

And then finally, just a little bit of correcting a loophole for posing, there were some children's hospitals that were inadvertently admitted because of administratively how we view a hospital. For us a hospital is an institution with a CMS certification number, that's how we recognize that you're a hospital, but if you are a children's hospital you would likely never bill Medicare, and so you wouldn't get a CCM. But unfortunately we had it specified by the range of CCMs and those hospitals were excluded from participating, and we're essentially adding those children's hospitals back in, I believe it's 12 children's hospitals, and we're giving them a placeholder fake CCM to let them participate.

And finally, we're proposing to extend the state's flexibility with the definition of meaningful use. You may recall there was the ability for a state to require certain public health objectives in the core rather than as the menu, and as to date no state has exercised that flexibility but we are preserving it for Stage 2.

And that, in a very long nut shell, is the overview of Stage 2.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Very good. Thanks very much, Rob and Rob. Let me open it up to comments, questions from the committee, and we have until 11:45. Marc?

Marc Probst – Intermountain Healthcare – CIO
Excellent report, thank you very much, and I hope we don't have a quiz here in just a second. Farzad, you started off with the *New York Times* article, and I thought the most fascinating part of that article was the last two lines, "When questioned whether or not he would continue to use an electronic medical record he said he'd never go back." So it was pretty interesting. If we stick with the escalator analogies for a second that we've been using, I think this is excellent work. I think you really have given a lot of consideration to what this group's put together, and there's just an interesting increase in what we're doing, and I like seeing that.

But if you stick with the metaphor I'm concerned about two parts, Farzad. One is getting on the escalator. I'm just a little concerned whether people are able to and if people might be making suboptimal decisions, even around vendors, because of the capacity of some of the vendors to actually keep up with the demand that's going there. And that may be more of a timing issue than anything else. Again, I think the criteria look pretty darn good. And maybe as concerning, or more concerning to me is at the other end of the escalator when people are getting off, if you don't have the right power requirements or you don't have a lot of physical infrastructure in place, we're not making people incredibly dependent on these electronic technologies, and frankly in our organization if our ED system goes down we divert patients to somewhere else because that's how key the technology's become. I'm just wondering, if we're paying

enough attention and if we should have more focus as a policy committee on some of those things that just need to be in place. We talk about safety, we talk about privacy, we talk about a lot of these things, but there are some basic infrastructure components that I think have to be there when you get off the escalator to sustain the model that we're putting in place. And if we don't, they're going to have big time safety issues.

But again I think this is really good work and the devil's in the details and I'm sure we'll have comments to come back. But thank you so much for the time and the good work, both in the committee and with you, Rob, too.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Deven?

Deven McGraw – Center for Democracy & Technology – Director
This is just a quick one, again, really nice work. And I read through the rule once and now sat through two presentations and I feel like I'm still not 100% on top of this, but I certainly saw a lot of stuff that I like. One thing that I did notice, I read through the certification rule as well, because a lot of the recommendations that the Policy Committee vetted and agreed with that came through the Tiger Team had considerable implications for the technology, and it's not just privacy and security where that linkage exists, so I actually think it would be helpful maybe at our next meeting for us to hear more about what's in the certification rules, again, not that we're the technology experts per se, but we have a fair number of them and those linkages are pretty critical.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Thank you. Larry?

Larry Wolf – Kindred Healthcare – Senior Consulting Architect
I'll agree with the unanimous support so far. This is a lot of material, the rules are pretty robust, but it's still a lot to digest. I agree. And I agree with your comments, Deven, that it would be great to also look at the certification and standards, because that's actually where I've been spending a lot of my time as well. A suggestion perhaps that the infamous arrow actually needs a minor update. It originally said use in sharing at the first bullet, but we really didn't do sharing at the first bullet so I think if we move the sharing to the second bullet it would both align with what we're doing and really reinforce the message, which I think is a very important one, and information exchange is a very key piece of this new work. I like the continued presence of some flexibility, although given the way things have been regrouped I have to figure out what showed up where so there's homework for us to do. I guess flexibility adds some level of complexity as well, so we've got to balance those things. I really want to reinforce the alignment with other programs. That really is critical for this becoming an ongoing thing and not just a onesie activity but really to align with the other programs.

I want to pick up on a different piece of Farzad's comments about what we have to learn, because I agree that this is not about implementing technologies, this is about improving care, and that takes time. The year that's now built in between the final rule and the start of the reporting period in my mind is the absolute minimum time period that that could possibly be met by anybody, and one of the reasons I think we saw such slow adoption in the first year was it just wasn't physically possible to get a new system to figure out what changed in the clinical process to get people trained to get it rolled out. The year that we have in there now I think is still a very, very tight time frame.

Having said that, I think we also need to look back at what has been learned and that we really need to look more deeply at the kind of example of that problem list that was given here, of where is this in fact a way that people are using this to improve care, improve coordination, and we get the message out about here's what can be done and help people transition from that initial tidal wave of, oh my God, everything I used to do is now changed and I have to have a problem list, so I have a problem and now, oh, I've been using this for six months, it's not so hard to have a problem list. Oh, and I see I get problems from other people I'm sharing information with, and oh, that actually is useful and now I need to figure out how to use it. So that takes time as well. I think we're going to see waves, and certainly historically as systems have

been implemented there have been these waves of we get it out and then we learn how do we actually use it and what's the feedback from the experience, and so that takes time. And our whole schedule compresses some of that out of the process, so we need, I think, both here as a committee and more broadly to be looking at deep assessments of what's working and what's not working.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Neil?

Neil Calman – Institute for Family Health – President & Cofounder
This is exciting. And I would just say that Farzad started out playing defense, but I think this is our offense, we have the ball, and I think we're moving the ball forward at a good pace and I think that's really exciting. There are a couple of things, having heard you yesterday and again today, a couple of things that jump out at me, just to reflect on. One is, the idea of pulling out the problem lists, medication lists, and allergy lists from maintaining a current list to just making it a requirement at transition I think is a bad signal for folks potentially because actually it's in the use of those lists in day-to-day practice and their updating and their refinement that they actually become useful. And moving that to a point where they become fields in a transitions document I think loses the message of how important they are in day-to-day practice to be maintaining them and maintaining them as current. So that would be one comment. I know that we're trying to be parsimonious, but I think that may be a place where parsimony may signal something that we don't want to signal.

The other thing, and I don't really know how to deal with this, but I'm concerned that the quality measures piece, the proliferation of quality measures is becoming something that is more of a certification issue than it's an actual meaningful use issue. You can generate all these quality measures, but it doesn't mean that anybody in practice is meaningful using these messages to improve the care that they're doing. We're generating measures, we're generating information electronically but what we really want to do is we really want to promote the use of those measures, so how they're reflected in the electronic health record, how people are able to access them, and how they're updated and used by providers is something that's part of the meaningful use piece.

The other piece seems to me to be part of certification, which is really can the system actually generate these measures electronically in a report that gets sent electronically to CMS. And you could do all of that but never really meaningfully use a quality measure in terms of improving practice, and I think we need to think that through a little bit. I'm not sure how we make that transition. There are places where we're still very dependent upon what's available on the other side. I think public health is one of those. And I wish we could have made more progress in public health beyond just the immunization piece to really signal to the community that we do need to get syndromic surveillance and other things going. I don't know how to signal that because we don't really have dollars to put into that system, but it seems to me that that's something that we need to put more attention to.

The last thing I would say is the alignment with PQRS is really great for private providers, but for community health centers they can't do PQRS and it would be great to see if we can align that with the electronic preparation of UDS measures, and since community health centers are proliferating like bunny rabbits at this point and becoming a bigger and bigger part of this system, especially as we look more towards primary care, we should think about the electronic development of the EDS measures and there being able to be transmitted as another way of meeting meaningful use so that the community health centers aren't burdened with this with the two completely different sets of measures. So those are just some comments, but overall I'm really excited about the progress we're making and I think we're on our way up the arrow.

Farzad Mostashari – ONC – National Coordinator for Health Information Technology
Let me comment on one thing you mentioned, we actually have worked with HRSA to align some, if you notice the EDS measures are starting to look and we have some core measures with ... type measures that are shared across both and not just the concept but also the specifications. So that's a good point, to continue to push on that harmonization not just with PQRS but across all programs.

The point you made about quality measurement and the connection between quality measurement and quality improvement I think is so critical. To turn the perception of this as being an accounting for past deeds or misdeeds into a learning and dynamic opportunity for providers to own and improve the quality of care is the ballgame. And we've tried to signal that connection, for example, by linking the five decision support measures tied to the quality measures, making it obvious what the intention of that is and making sure that systems have the capabilities to do not just the data collection but the calculations. We talk about learning how to make meaningful use of meaningful use in certified EHRs, this one is one where there's a lifetime of learning and folks like you have been doing it and you never stop learning about how to do that more and more effectively, but I think in terms of where we need to focus on and where we need to be, I think Patrick agrees that we really need to be empowering providers to use quality measurements as tools for quality improvement rather than merely as accountability and accounting measures.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Thanks. Christine?

Christine Bechtel – National Partnership for Women & Families – VP
Thank you very much, Rob. Same as Neil, it's the second time I've heard you and had a chance to read through a lot of the rule, and I did want to say I think it's really thoughtfully done and we appreciate that. There are of course parts that we may not totally agree with, but that's what a comment period is for, right? But I really appreciate the thought that's gone into it.

One of the things I just want to raise around quality measurement is I'm a big fan of alignment, and Patrick's heard me say this on the measures application partnership, and I am glad, though, that you are asking for public comment on alignment with PQRS and which measures would be good, because the caution that I want to give folks is alignment as a concept is important but it's also fairly blunt. And PQRS does have a lot of really low bar measures that aren't very meaningful, that aren't HIT sensitive, and that may not be really appropriate for the context of meaningful use. So I am, like I said, glad that you're asking for comment on the subset of measures that might be included. I would say that one of the things that I believe will be important in that is to not only look at higher value measures in this context, but also to look at ways that we can ensure both measures are stratified by disparity variables. We've really laid a great foundation in meaningful use Stage 1 around demographic data collection for race, ethnicity, language and gender, and the ability to generate lists of patients by those variables. So we need to bring them both together and think about how we would ask providers to report disparity variables.

Then the last thing that I have is really a question, and it may be for you, Farzad. I know that we led, as part of the Quality Measures Workgroup, there were a series of Tiger Teams last year that recommended some measure concepts for Stage 2 and then of course for Stage 3 as well, and I think that ONC and CMS made some investments in trying to advance those measure concepts for Stage 2. I'm wondering if there are building blocks in the rules that can be built on or how do those things come together?

Farzad Mostashari – ONC – National Coordinator for Health Information Technology
Again, maybe we can have a later briefing on the status of those, but we did take some of the, particularly many of those that are recommended right now in one of the options as core measures if you look at them really were trying to attempt new measures to attempt to fill some of those gap areas, whether it's around medication management, which is one of the key recommendations on the patient safety side, moving beyond inappropriate medications for the elderly into something that is a little bit more common and uses the strength of the electronic health records to bring together laboratory information with medication information, whether it's closing the referral loop. So there are in the current NPRM measures that are listed as being measures that we're developing and we hope to have completed by or shortly after the final rule comes out, and we're seeking comment on whether those measures that may be newer measures under development, measures that we think fill critical gaps that are built to be health IT sensitive and make the best use, but may be being developed now, we're going to seek your comment and look for your insights into the relative emphasis on which measures are the most significant ... .

Christine Bechtel – National Partnership for Women & Families – VP
Just a quick follow-up question then, if those measures were to become available what would the implication be for alignment with PQRS where those measures are not part of PQRS? Are they mutually exclusive, is I think my question, Patrick.

Patrick Conway
The idea would be that PQRS, as you know, is on an annual rule making cycle, so we would be able to update that in one of those rule making cycles to make sure we had alignment. I think two other quick points, if it's okay, so one, from a principal standpoint we have been aligning measures but also prioritizing measures, so if you think about, just to use a hospital example that ... relevant to PQRS on the outpatient side, in the hospital we have inpatient quality reporting and we have a subset of those measures that are hospital value-based purchasing, so it's literally one submission but then we parse how we use measures internally to CMS, so I think for PQRS that means we'll use, obviously we're in a rule making cycle ... but the same type of principal can apply where a subset of PQRS measures could be for meaningful use measures, and as was alluded to, we brought out this core and domain concept to prioritize among the measures reporting. So I think it's aligning and prioritizing and I think we're trying to hit that sweet spot but obviously we welcome comments on issues we may have missed or other things we should consider.

Christine Bechtel – National Partnership for Women & Families – VP
Thank you.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Thank you. Joe?

Joseph Francis – Department of Veterans Affairs – Associate Director, Health Services Research
Let me add my kudos to the summary, but also build on Farzad's earlier comment on how you make meaningful use meaningful, and we have some experience over the last decade just some of the challenges, and I think one is, and this is not something you resolve through the rule making process, because once you put out a bunch of things that you have to do it's a check list, and dollars are attached to it, you have to have some other process to make sure that how the boxes are checked actually are meaningful and done in the right way. So the two things that I worry about, number one is within CQMs, again, some discussion in some of the other committees about how systems are hard wiring these as they currently exist in their first iteration, which is admittedly imperfect, versus the need to create both a data architecture and an information model that allows for a much more flexible, patient centered and longitudinal way to track populations, huge issues, by the way, but I think that it's where you are, it's where other activities have to support what you're doing in the rule.

The other thing I've been reading in my own specialties literature, and I have to say I have mixed feelings and some concerns about this, if the meaningful use requires that interaction with knowledge support on the computers, is the rule speak to the use of scribes and what's happening in that world there, which I think is opening up a whole series of interesting issues, including professional life insurer issues, scribes meaning the person you hire to ... the position who does the actual entry into the computer.

Robert Anthony – CMS – Health Insurance Specialist
I will say that there is not anything right now in Stage 2 NPRM that specifically addresses scribes. In general regarding the program we've gotten that question a number of times, and not just about scribes but assistants in a number of different capacities, and the thing that we generally tell people, what we try to emphasize is that we're trying not to prescribe workflow with what's here and outside of CPOE there's really not any type of specification about how that information gets into a system. So whether it's a scribe or front desk personnel or feed from another system, I know a number of hospitals get their demographics information from a number of systems, and that's perfectly acceptable. For those objectives it's just a matter that that information is recorded. Obviously CPOE is a little bit different; the intention is to make sure that if there are any clinical indications, any clinical alerts, that somebody with clinical knowledge will be able to take some action on that before an order actually gets executed. But for the other objectives,

recording and giving information and so on and so forth I think that a scribe could easily fit into that type of workflow.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Carl?

Carl Dvorak – Epic Systems – EVP
I've got four comments. First, I do want to echo Neil's comment on the problem with ... . It would be certainly a bad thing to see people begin to ... only at transitions rather than through the normal course of care. But to start, I think there's a lot of optimism for Meaningful Use Stage 2. I think it's impressive to see how many of the learnings from Stage 1 have already been factored in, so I think we're doing a good job there. At the front line of helping people achieve meaningful use we see a lot of the unintended consequences, and most of them are customers that quietly accept in advancing the greater good, so they don't get too concerned about them, but they're there. I think we as a group need to remain vigilant that the burden of the requirements are sustainable, as I think Marc commented, but also commensurate with the value in improvements in care that we seek. We've seen a lot of these things happen.

And one thing that particularly caught my attention, in part because I read the regs and in part because Rob mentioned Epic as an example, but the 10% of external transitions of care being required to be crossed to non-affiliated organizations, cross-product and cross-provider, I think there are probably smarter ways to achieve the objective of interoperable electronic health records, which I know we as a company and we as a greater industry fully support. I think, though, with the current construct we really have a high risk of an unintended consequence that might disrupt referral patterns which would ultimately reduce coordination of care, we might take away some freedom of choice if a group would like to get an EHR that matches the one that their local hospital has so they can maximize content and duplication, they can maximize protocols being cross-implemented, reduce the cognitive burden on physicians who have to go into the hospital on the weekends and practice on the weekdays, and support other ACO type initiatives that they would like to have common paradigms to manage their data against.

I would suggest that instead of that approach that has serious downsides, and again if you choose to not do it you run the risk of being disqualified from the meaningful use program and not only ... but face penalties for it, I would suggest instead that in order to ensure that EHRs are indeed interoperable, which is a goal we support, create some federal reference points. And if for some reason you can't, and we have sites that probably wouldn't mathematically be able to muster 10% referrals outside of an agreement or arrangement where they already have people on similar systems, I would instead suggest that we create a federal reference point for if you feel you cannot do the 10% then make sure you're able to connect to your local Veterans Administration, make sure you connect to the Department of Defense, make sure that you can connect to SSI through an NwHIN or a Direct type protocol. I think we can find better ways to accomplish that mission that wouldn't have serious unintended consequences.

The second comment I wanted to make, well, two comments related, quality measures, there still feels, as we at the front lines implement these quality measures and the quality reporting we still feel like there's a very significant disconnect between those two right measures and what data's actually collected in the course of care through EHRs. I think the people who write measures to me feel still in a chart abstraction mode, and I think what we need to do is put some focused effort behind moving from that chart abstraction mode of quality measure authoring and move to maybe work this from the bottom up, what data is physically collected and how do I build my quality concepts out of data that's collected and at least maybe focus on quality measures that are more natively in tune with the data that exists in EHRs and then work our way back up as we learn from that.

The second thing is at a CMS level there seems to be much confusion and conflict around electronic reporting mechanisms. I would suggest that that's an area of focus that some of the technical staff could work in to try to come up with a simplified approach that made sense for providers being able to electronically report. I know there are file size limitations, format limitations that really serve as pretty significant obstacles for building out the infrastructure to streamline the submission of the quality measurement data back to CMS, and we'd be happy to work with you on that as well.

Robert Anthony – CMS – Health Insurance Specialist
I do want to say actually from my electronic technology I got an NPRM decision support alert, there is in fact, indeed a discussion by CPOE, a discussion of scribes at Stage 2 and a request for comments as to whether there are any ... .

Farzad Mostashari – ONC – National Coordinator for Health Information Technology
Carl, there were a lot of nodding heads when you talked about working with quality measure developers to make sure that the construct moves from data that you can obtain from chart review to data that can be routinely collected easily in the routine delivery of care, and that's some of the work that I think when we're talking about health IT sensitive and the new measures that really make use of the strength of the electronic health records, that's a part of it. But there is also, as we see comment in the reg, in the certification rule, a whole section on data collection and how should we approach that issue. Should we list individual data elements by data element for quality measure by quality measure for electronic health records to carry, and we asked for comment on whether the quality data model or some constrained version of that with attributes might be what we ask the measure developers to limit themselves to, how we deal with exclusions, those are critical issues. I think the hearing that we're going to have in a couple of months in May, that looks at the entire life cycle of quality measures, is going to look at those issues. But that's absolutely where we need to go.

Carl Dvorak – Epic Systems – EVP
Thanks.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Neil, you have one follow-up?

Neil Calman – Institute for Family Health – President & Cofounder
Yes, actually two quick follow-ups. I did have on my list that the 10% out of network requirement piece, I think that that is really problematic, and I think the way people are going to react to that is why are we letting meaningful use drive the relationships that we have for patient care rather than having it follow the relationships we have for patient care? The last thing I want to be doing is developing new relationships outside of my system that I need to refer to just so I can meet meaningful use, and I think the more integrated systems become, which is really the calling, that the federal call is for integrated delivery systems, the more integrated our systems become, the harder it's going to be to find people outside of those systems that we're referring to because we're trying to do just the opposite right now, we're trying to really link everybody together and make that work. I think that signal is going to be misread by a lot of people. So I think that to me, again, that's a certification requirement. It's not a meaningful use requirement. Systems ought to be able to use standard formats, so when I as a provider want to refer to anybody my system ought to be able to do that in a format that's specified and the system ought to be required through its certification processes to be able to deliver and receive those messages in standard format. But meaningful use, in my opinion, shouldn't determine what the relationships are that we have and how we develop those. That's one point.

The second thing is I just wanted to emphasize Marc's point, I actually think we need a new major category at this point, because the issues that Marc raised about the reliability of the systems and the people, our medical director refers to our electronic health record as the central nervous system of our organization, so try to function without your brain and your spine and you have an understanding of how dependent we've become on the technology. We just had an external review done just around this stuff, and I was astounded at the 14 pages of comments we got about all the vulnerabilities that the system had, 2 of which were actually prescient in that they happened shortly after we got the report, and things that we wouldn't have predicted. So I do think that as we become totally dependent upon these systems for all of our communication and everything like that, that we need to drive some sense into the community of how critical it is that people pay attention to this and provide some guidance in that area, because most providers, including us, and we've been on electronic health records for 10 years, don't really have a sense of what all these vulnerabilities are.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
That's a good comment. Reliability is part of security, so actually we might be able to work that into category five. Connie?

Connie Delaney – University of Minnesota School of Nursing – Dean
Thank you, Paul. Connie Delaney. Rob, thank you for your presentation. I was most affected by your comments related to electronic transmission problem lists, there have been additional discussions, and then Neil, when you were just talking about vulnerability, I think that your findings are also exposing a considerable vulnerability in people and how we're training professionals. I'd like to suggest a potential reuse of some of the findings that you have to push the envelope even harder and faster for inter-professional education, number one, and clinical decisions independent of the electronic environment. I'm concerned about the thought of just learning the functioning of a problem list; and second, I think the data can be recycled to create an even more significant import on informatics competencies for all healthcare professionals.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Thank you very much. Rob and Rob, it was a terrific presentation and excellent work on the NPRM itself of course, and we look forward to the ongoing dialogue. We'll transition into your update on Meaningful Use Stage 1, and I think, is Jess going to be on the line?

Robert Anthony – CMS – Health Insurance Specialist
Actually I'm going to cover for Jess today. She was not able to be with us.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Great, thank you.

Robert Anthony – CMS – Health Insurance Specialist
I will try to be somewhat abbreviated on this one, because I'm sure Deven and Neil and others are probably tired by this point of hearing me speak. We did not have enough time this month to finalize February numbers. I am going to give a brief update of what we have approximately at this point, but I do want to go over very quickly the finalized January numbers, which are up on the Web site now. In January we had about 15,500 total registrations. We are at a little over 191,000 registrants for program to date. Medicare incentive payments were at a little over 7,700 providers paid, most of those obviously eligible professionals, a total of over $311 million for the month of January, which gives us a program to date payment amount there of almost $1.7 billion and 23,000 providers paid. This is a breakdown, and we started doing this in our monthly reports now so that people will be able to see the different specialties that we have listed. The other specialty, I often get the request well, why can't we break out that other specialty? Often that other specialty is actually we don't have an indication of specialty within PECOS, that's what we draw from. Others, there really isn't a critical mass at this point in time, but these are the primary. Obviously family practice and internal medicine, as we would expect, are at the top of that list.

On the Medicaid side, we did start paying in January for meaningful use. We only paid 8 people from meaningful use in January, but it's a start. I don't have final numbers for what the February payments for meaningful use are yet, but we are moving forward. In total about 3,600 folks were paid for Medicare and Medicaid incentive payments for both meaningful use and adopt, implement, and upgrade; we do break out the different categories there. Program to date we're at a little over $1.4 billion to the states. At this point I think we'll have a little bit of a graph in a second of 43 states that are active. In total we've paid through January 43,000 providers, and we were at $3.1 billion total program paid. These are draft estimates. We should get some final numbers, hopefully beginning of next week, posted to our Web site. I encourage people, the link is down there at the corner, please go to our Data and Report section, that's always going to be the latest and the greatest.

All of these numbers are estimated, I will place that caveat on it, but it looks like as we come into the home stretch here for the last time that EPs can really attest for the program. We had a groundswell of Medicare EPs come in. Obviously we're still going to have some folks in March as well because there are some states that have given 90 days and there are some folks that will have missed the cutoff payment

date for February that will roll into the March side, but 18,000 providers paid in February for a total of 61,000 providers ... to date. That was 730 million paid in February through both Medicare and Medicaid, which is our biggest month. That puts us at 3.8 billion so far paid for the program, which means that I get to do these charts where it goes off, it's fantastic. From now on I'm just going to go from October over, it looks so much better. Yes, obviously we have taken off, as we would expect, as we near the end of the fiscal year and the end of the year we had quite a bump and then we're getting all of the folks, December, January, and February who were coming in. It's their last chance to really do attestation for Medicare and Medicaid. We did have a little bit of a dip in payments in January. That's probably primarily due to the fact that we had a number of EPs, not as many hospitals. Obviously the hospital payments contribute quite a bit to it, but because we had such a large number that came in, in February, we did hit our biggest paying month ever. I'm sorry, 42 states launched as of February, 33 that had disbursed incentive payments as of this point.

I'm going to go through the attestation data very quickly, because as you're going to discover not a great deal has changed since the last time that we looked at this. As I said, we only had 8 Medicaid EPs that we're attesting in meaningful use. That data was not included in this analysis when we ran it. We did not get that information back from the states at this point, so really what we have right now is Medicare data, there's no Medicaid-only hospitals, and there are certainly acute care prophylaxis hospitals that could be receiving meaningful use incentive payments from both Medicare and Medicaid. But right now what we've got is the Medicare data. Medicaid is coming, but there's going to be a lag as we receive that information in.

You're probably tired of seeing that first bullet that on average all of the thresholds were greatly exceeded, but there certainly is distribution of providers at the borderline of every threshold. Drug formulary immunization registries, the patient lists with the most popular menu objectives for EPs, there's some distinction amongst specialties but in general that holds true. Advanced directives, drug formulary, and clinical lab tests are actually the most popular menu objectives for hospitals. As you'll see, the numbers remain low for transition of care summaries, or patient reminders for hospitals. The least popular menu items were, again, transitions of care summaries and syndromic surveillance. Not a great deal of difference between EP and hospital performance, everything is universally high. There's not a great deal of difference amongst specialties in performance, but there is some difference in exclusions and deferrals, and I'm going to go over a little bit of that at the very end of this.

Again, as we said last time, we have a data set now, we have our "N," but we're waiting to find out what it means. Does it mean that we have the early adopters who we would expect to be the really high performers, or does it mean, as I've been getting some anecdotal feedback when I talk to providers, that once they implement they implement. In other words, I've never had a provider call me up and say, so I only have to hand out office summaries to half of my patients? They call me up and they say, I've got to give office summaries to everybody? And it may simply be that once they implement, they implement across the board for all patients. This is, again, the early adopters. At the time of this analysis we had about 58,000 EPs who had attested. Over 57,000 were successful, 298 unsuccessfully, but since then 146 of those EPs have resubmitted. All of the hospitals that attested at this time have been successful and we have 1,061 hospitals.

As you're going to see, usually I try and call attention to where we've seen some real difference, some changes from previous months. Usually we have about a margin of +/- 3% an error here, and virtually everything that we see here falls within that margin of error. There were really only movements of a percentage point of 1 or 2, so the performance on objectives is overall very high. We do continue to see, as I said, a pretty high deferral rate on sending reminders to patients and incorporating lab results and so on and so forth. There's really been no substantial movement in any of these percentages. The exclusion for providing an eCopy of health information on this actually dropped. When last we looked at it, it was 75%, and it has moved to 69%. So that, really out of all of these slides, is the only data point that you're going to see move significantly, and I think, as we discussed, we're probably seeing the fact that more people are aware that they can ask for that. We've got patient education resources still deferred at a fairly high rate, and again, timely electronic access. There's no significant change here. The performance, when it's done, remains relatively high; deferral rates also remain relatively high.

Then on this side we saw a slight increase in the performance of immunizations, it went from 34% to 38%, and a concomitant decrease in the number of exclusions, from 45% to 41%. I'm assuming that everybody jumped from the exclusion to the performance category on this one. Syndromic surveillance stayed the same, again, as we discussed before this a number of folks that just don't have access to that type of ... . Hospitals are pretty much the same, still the same high standard of performance right now. Patient lists are in this grouping the highest level of deferral, but there's been no significant change since last month. Again, we're seeing the same rates here as before, pretty high exclusion rates for eCopy of health information, eCopy of discharge instructions. The exclusion, as a reminder, is essentially people who, if nobody asks for it, then you can be excluded from reporting on it. Again, here no significant changes, very high deferral rates on these, but fairly high performances when they actually are chosen.

Then we see higher performance on syndromic surveillance here because it's more available for hospitals, but still obviously the number of immunization registries and the availability is much more prevalent than some of these other registries, so we're seeing more of it there. As we've gotten a little bit more information, we talked a little bit about this at HIMSS, and I wanted to show the folks here about the difference in performance objectives between specialty providers and the family medicine internal practice, the folks that we would think of as having fairly traditional office visits. We do see on vital signs a higher performance of recording vital signs in the traditional office versus those who have traditionally little or no patient contact. Incorporating lab results, as you might expect, those who are probably not doing a great deal of face-to-face visits are probably doing a fair amount of lab test diagnostic interpretation.

Patient reminders is actually relatively similar, there is more electronic access, more selection ... and higher performance for those who have little or no patient contact. We're seeing, obviously more patient education from those with the traditional office visit, but what's interesting is still a performance well above the 10% for those who traditionally have little or no patient contact. But what's interesting is those who traditionally do not have much patient contact, those who on the specialty side are much higher on transitions of care, providing transitions of care summary. On the exclusion side, as we would expect, for specialists a higher exclusion rate for ePrescribing for vital signs because they may not do it as a course of workflow, and for lab orders, although it may be a reflection of specific specialties, a higher deferral rate for incorporating lab results for most primary care, fairly similar for electronic access deferral. Interestingly enough, more traditional office visit physicians defer the education objective, and then for summary at transitions of care, although they perform at a higher rate when they actually provide this information, more of them defer it than not among specialists. We're going to continue to look at that information. Again, it's probably, with the pool we have, a little too early to say exactly what all of that means, but what we're watching and as we get more specialists in, as we get more providers in general to see in what ways they separate and in what ways they come together.

We do have performance by state. This is a national average on the left, and you see what the highest performing states were over on the right. I'm not sure that we have enough of a critical mass in these places yet to say exactly what is the reason for this. There are certain areas, such as ePrescribing, for example, in Hawaii and Massachusetts, significantly higher and we can point to some reasons for things like that, timely electronic access we see significantly higher in Minnesota and Oregon than the national average, and in education in Alaska, Hawaii, and Missouri. Then on CPOE Virginia performs much higher than the national average, and education in most of these is relatively ...for hospitals. Again, we're going to continue to look at that to see geographically if there are some things that account for the trends or push them along, but that's what we have now. Again, some of this is preliminary data, so I would really advise people to visit the link above. We hopefully beginning of next week are going to have finalized reports of what the numbers are, the February payment numbers are, estimates, so we may actually see some slightly higher numbers as we move into finalizing those. But with 3.8 billion we're pretty pleased with the progress at this point, and ... .

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO

Thanks again, Rob. Comments about some of this exciting data? Everybody's waiting for lunch. Okay. Logistically, Mary Jo, can we reconvene earlier? Okay, it's 12:10, so if we come back at 1:10, would that work for people?

Mary Jo Deering – ONC – Senior Policy Advisor
Yes.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Yes, and get out a little earlier. Wonderful. Thank you, again, Rob, for both testimonies. It's been very, very helpful.

Robert Anthony – CMS – Health Insurance Specialist
Thank you.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Welcome back to our second half of today's meeting. I got so inspired and charged up by Farzad's message I forgot to ask for approval of the minutes.

M
So moved.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Thank you. Thank you. All approved?

W
Aye.

M
Aye.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Any opposed? Any abstentions? Well, good. We got that piece of business taken care of. Now that brings us to the next item on our agenda, which is Christine Bechtel talking about an interesting EHR survey that the national partnership conducted.

Christine Bechtel – National Partnership for Women & Families – VP
Great, thank you. It's fun to be on this side of the table. This is the first time I've been over here. It's a nice view.

Deven McGraw – Center for Democracy & Technology – Director
... .

Christine Bechtel – National Partnership for Women & Families – VP
Yes, I'm sure, Deven. No. I'll try to talk in a really flat monotone voice so as not to disturb the nappers after lunch. We were fortunate enough to do a survey in partnership with Dr. Alan Weston, who many of you know, he's the godfather, if you will, of health information privacy surveys in the United States, and he's a Professor Emeritus at Columbia University. We were also able to have some really spectacular advice from an advisory committee that helped us design the survey instrument that actually a number of Policy Committee members were on, including Paul and Deven and Charles, and we had federal agency officials as well, ONC and others. We're very excited to talk to you about this today. My colleague, Alice Lighter, is with me and was our lead on the survey as well and did an absolutely terrific job, so she's here to answer questions that I can't answer perhaps.

The question is, what did we do? It's a really interesting time for meaningful use and for consumers and we're starting to really see in the field the early stages of what's happening out there with electronic health records. We did an online survey in August, so last year, and we surveyed almost 2,000 people

and there were really two criteria to be in the survey; one is you had to have an ongoing relationship with a care provider, because we wanted people with experience in the healthcare system, and you had to know what kind of record system that a clinician used, whether it was EHR or paper. I think this is actually one of the unique elements of this survey because it really is two pools of people; ones who are really answering questions based on their own experience and direct experience with electronic health records, and then others are imagining what that might be like. We also did an over sampling of Hispanic respondents, and we felt like this is important because obviously Hispanics are one of the fastest growing segments of the population, and I'll talk about those findings interspersed throughout.

We asked people how youthful they thought EHRs either are, if they had them, or would be if they were on paper when it came to a number of domains of care improvement, and it's a little bit hard to see on the printed copies in front of you, but things like all providers have timely access to health information or communicating with providers and managing prescription refills, things like that, and so this is really a question about EHRs. And the upshot of it is that between 88% and 97% of EHR respondents and between 80% and 97% of paper respondents said that EHRs would be useful for these elements. We also asked questions about each individual's own record system, and so we were really able to compare responses across both paper and EHR respondents. And if you look even only at the red bars here, it's pretty dramatic. The red bars represent people who set a great feel, so we asked how much they think either the EHR or the paper record system helps their doctor with a number of elements like managing health conditions or medication history or avoiding repeat tests. Again, really interesting results here, but between 75% and 84% of EHR users rated EHRs positively and that was compared to only 29% to 46% of the people who had paper records. So just as one example, care coordination is probably the most dramatic, only 29% of paper respondents said that a paper record was helpful to their clinician in that. In the end, EHRs were rated between 23 and 37 percentage points higher than paper by these individuals.

We also asked about how helpful the EHR or the paper system was to them personally, and again, really dramatic results here, about twice as many EHR respondents said that that system had a positive value to them. Among Hispanic adults there was a very interesting data point that really stood out here, they were significantly more likely than the total respondent pool to say that the EHR helped them personally in some important ways, so they were 18 percentage points higher to say that the EHR helped them maintain a healthy lifestyle, they were 13 percentage points higher in saying that it helped them understand their health condition, and 11 percentage points higher in saying that it helped them keep up with their medications. We also asked about online access, for obvious reasons it's been a big component of our discussion in meaningful use. About 26% of the respondents in this survey had online access to their own health information, and what you see here is we asked a frequency question, so almost half of these respondents used their online access three times a year or more, and actually almost a quarter use it seven times a year or more. There are really some interesting use patterns here, and I'll get to the 20% who said they don't use it, we actually asked them to give us narrative responses on why, and I'll get to that in a second.

We found some really fascinating things and we looked at people who had online access compared to those who didn't, and what we found, perhaps not surprisingly, was that there were a lot more likely to say that the EHR is useful to them personally for key elements of care delivery. They were more likely to say it had a positive impact on the quality of their care, it was useful to their provider, they were much more likely to be satisfied with the record system. But I think what was interesting and stood out for us was that they were also a lot higher in saying that they trusted their provider to protect their patient rights, and that they were well informed by their provider about how their information is collected and used. It seems to lend a big element of transparency to the healthcare system that really increases not only value but trust.

We did ask people who said they don't use their online access why, and the responses broke down under two reasons. One was that they preferred to communicate in person, so not surprising. But there were actually a lot who essentially said it was a functional issue, and you can see some examples of the narrative responses that people gave us here. I can only see certain things like lab results, it's not a complete record, they are frustrated that errors that they requested to be corrected weren't, or how to use

it just wasn't explained to them. These are people who obviously know that their provider offers it and we don't know obviously among those who just don't know that their provider offers it, which we're hearing increasingly as well.

Two other points that really stood out; one was that Hispanic respondents who had online access were 15 percentage points higher in saying it actually increases their desire to do something to improve their health. That, to me, was a really standout finding that really offers some interesting insight as to how we might use these tools to support reducing disparities in health outcomes. And then of course people really want it, two-thirds of paper respondents we asked said that they wanted online access, and that was even more the case for Hispanic respondents.

We also asked a series of questions about privacy and trust, and I'm going to give you some highlights. This is actually very interesting to me. Both paper and EHR respondents rated EHRs as better and more useful than paper systems in complying with privacy rights, and you can see the specific elements in the sub-bullets that we queried. Each of these bullets was between 5 percentage points and 26 percentage points higher when it came to electronic health records saying that they were better. But not surprisingly, people still have a lot of privacy concerns, so we asked a series of four statements here, and there are two positive and two negative. We rotated the order of course and we asked things like how much do you believe that widespread adoption of EHRs will lead to more breaches. We asked questions about how much do you trust your doctor to protect your health information and things like that. Not surprisingly, large percentages of both groups, so about 59% of the EHRs and 66% of paper respondents, are worried that more EHRs equals more breaches, although I would note that paper respondents were about 10 percentage points higher in being concerned about that. And about half of both respondent pools believe that the privacy of their records is not well protected by current laws and practices.

This is another one of the areas where the views of Hispanic respondents really did stand out. They were about 14 percentage points higher to be concerned about breaches, so that's clearly something that we need to keep an eye on. That really led us to think about who are these individuals that are the most concerned and most comfortable, and somewhere in the middle, around privacy issues. So we worked with Dr. Weston to create two things; one was the privacy segmentation and one was the trust segmentation around trust and physician. So I'm going to share with you the privacy segmentation and you can look at the trust stuff on our Web site. But we wanted to do this segmentation to see who are they, can we identify them, can we describe who the subsets of these individuals are demographically, and then also to use it to ... is there a relationship between privacy and value. The segmentation that we came up with broke down so that essentially it's about 20% of the populations, 20% of EHR, 24% of paper, are significantly worried about privacy, and I think it's 49% and 47% are more comfortable, and the remaining fall into the middle. Again, these segmentations are based on those four asserted statements that we showed a couple of slides ago.

So what we did was to really look at this relationship dimension between the two, and what we saw was that in fact there really is a relationship. And the reason we did this was we wanted to figure out, okay, if people don't trust electronic health records are they less likely to see value? Or, if they see more value are they more likely to trust? And we weren't able to do regression analysis and figure out the direction and the causality here, but we know there's a relationship. And so we saw that when you looked at the worried respondents, among the EHR respondents those who are more comfortable were significantly higher in saying that the EHR had a positive impact on quality, that it's useful for complying with privacy laws, and that they're satisfied with their record system. We did a whole ton of analysis that you can find in the report that also reflected the same findings.

We then actually turned to a couple more questions around values and perceptions, and we asked people who have paper if they think it would be a good idea for their doctor to adopt an EHR, and three out of four said yes. And we also asked some questions around quality. Now this is an interesting area, because the findings are mixed. On the one hand EHRs definitely were rated much higher in terms of impact on quality over paper, much, much higher, you see the data, but on the other hand when we asked people who had paper what the impact that they thought would be on quality if their doctors switch, a majority actually said that there would be no impact or a negative impact on quality. So I think this

probably comes back to the fact that consumers define quality in a different way than we do in these circles, where we're talking about clinical quality. They really think, and research from RDBJ and others shows that they think more about service aspects of quality and the ability to get appointments, ease of getting medication refills, the experience that they have, and so I think we do actually, though, have a case to make here because there are a lot of ways that EHRs can improve those aspects of service for patients.

So a couple of key takeaways here, I'm throwing a lot of data at you so I'll try to summarize here. As I said, there's definitely a relationship between value and trust. As we think about how we're engaging consumers it's going to be important to talk about both, what's the value here but also to address those trust issues. We also know that Hispanic adults are going to be a really important target audience because, again, they really stood out in some important ways and in some conflicting ways. They were more likely to see value in EHRs for themselves personally, but also much more likely to be worried about privacy issues. And because of these kinds of dynamics, which were present among Hispanic adults but also these concerns about quality, for example, that I had mentioned, we often hear people saying well, consumers need to be the demand force for change and we need to do a "Got EHR" campaign. The data from our surveys don't seem to support that that's probably a good idea at this time or would be an effective strategy.

We also did, as I say, figure out that we could segment the population to those most and least worried, and I should have mentioned earlier when we looked at both EHR respondents and paper respondents, we were able to see some commonalities between those who are most and least worried, or particularly those who were most worried. And the two groups that showed up in both of those categories were men and those ages 35-46. These are, again, segments of the population that as we engage with interventions around education and engagement we could track their views and perceptions over time and in fact could target some of the outreach to these audiences. And clearly we saw the level of trust in providers is off the charts. It's more than 90% in both respondent pools. And that's trusting providers to protect their health information, so given that incredibly high level of trust we think it's valid to think about clinicians as a really important messenger in this process.

The data also told us that there was a direct relationship between their ability to engage in the IT and the functions that they were offered and the value that they see and the trust that they had. And so looking at some of those more tangible benefits and making sure that online access is really working for them is, we think, something that is going to be pretty important going forward and that we need to build those in as well to other, not just meaningful use but looking at medical home, looking at ACOs, looking at information exchange capabilities.

And then the last thing that I wanted to highlight is it was very clear, we did ask about some privacy protected functionalities, we didn't use access and disclosure reports, all that technical language, but we did ask them about do you think the record system would be helpful in seeing a list of who's accessed your information or who it has been shared with. And it's pretty clear that consumers don't totally understand that because we saw very high rankings on paper systems, they thought a paper record would be good for getting those lists, and so we inside the ... know what's possible from a technology perspective, but they haven't seen and been part of those functionalities so that's going to be another important dimension to think about. You can get the full report, the executive summary, everything is on our Web site.

The one thing that we have done that I think is, and I'm hoping will be very useful, is we have made the survey instrument publicly available for anyone who wants to use it, so that certainly policy makers could use it, but also even health systems. It is a set of tested and validated questions, so a health system could conceivably come and take the survey and administer it in their own patient population to see how they're doing in terms of trust and delivering value, and so that instrument, you can also request the instrument through our Web site as well.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Great, thank you very much, Christine, and questions or comments? Carl?

Carl Dvorak – Epic Systems – EVP
Is there any work done to track how perception of EHR privacy tracks with some of the broader consumer tools like Facebook and Google? I know they've been front and center in the news lately a lot with a take it or leave it approach to "give us your data or go somewhere else for your search, go somewhere else for your Facebook" type stuff.

Christine Bechtel – National Partnership for Women & Families – VP
We didn't ask any specific questions that might draw those linkages in the survey, but there were some data points that indicate that when you look, for example, we asked if they had ever experienced a data breach, we asked some very practical questions about their experience, and then we were able to look at those versus the concern, and it was like 2% experienced problems, and it was like 80% worried about it. That does tell us, I think, that there is a connection between what we read and see in the newspaper, whether it's about breaches or Google privacy thing there's definitely a lot of discussion in today's day and age around privacy policy that I think is absolutely influencing public opinion around electronic health records as well.

Carl Dvorak – Epic Systems – EVP
Do you get the sense that consumers, or have you asked any questions that help us understand if consumers actually comprehend the difference between medical HIPAA type privacy regulations versus the FTC, Google, Facebook type privacy regulations? Do they know that there's a difference there, or are they assuming it's all online data privacy, one bucket?

Christine Bechtel – National Partnership for Women & Families – VP
We didn't ask, and so, Deven, I don't know if you have looked at that. Certainly that's a question we can take back to Dr. Weston, who he actually for this survey did a look at pretty much every major health information privacy survey that has been done in the last 20 years, and so I can give that question to him.

Deven McGraw – Center for Democracy & Technology – Director
I don't know that anybody's really done a survey that dives into that level of detail, but one thing that we do know is that people think that all health data's covered by HIPAA generally, so they become aware of HIPAA because they get a notice of privacy practices at every provider they go to, and every time they sign up for a health plan, and it's usually incompletely explained and not often read, and so HIPAA is getting up there in age and so most people think health data's protected by HIPAA and that is at the policy maker level as well as at the consumer level. When people read a *Wall Street Journal* article, for example, that talks about targeted behavioral advertising, do they think oh, wow, my data center is not protected there but it is when it's in a doctor's office? I doubt it. In part, because most of the articles that have dealt with Internet privacy, few of them have really focused on health data on the Internet, they've been privacy generally.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Thanks. Not only does the public think that all data are covered, but they probably think that all people and entities are covered by HIPAA, which is a problem. Joe?

Joseph Francis – Department of Veterans Affairs – Associate Director, Health Services Research
Any plans, either in this wave or a subsequent survey wave, to address public attitudes towards the downstream use of de-identified health information towards research, particularly health services?

Christine Bechtel – National Partnership for Women & Families – VP
There have been a lot of surveys on that. And I think as we move forward in meaningful use and we're starting to see in the environment query health and other initiatives taking hold, I do actually think that we will look to add one or two questions around that in the future.

Deven McGraw – Center for Democracy & Technology – Director
This is Deven again. I actually just looked at some of that survey research for an article that I'm writing, and in fact in one survey people don't differentiate between de-identified data and identifiable data and

say they have similar privacy concerns about both. But in the survey that the Markle Foundation did and released in early 2011, in fact the majority of people were quite comfortable with their data being used for research purposes when it's de-identified. Reconciling the two is very difficult. Clearly, somebody needs to take it on, not as one question in a broader survey, but as a survey of that issue in particular.

Christine Bechtel – National Partnership for Women & Families – VP
Yes, and my guess is, and this I don't think we would do as part of this survey, but my guess is that we need to have a better vetted and tested set of questions because the answer you get will be different based on how you ask the questions. And I think that's more than a couple of questions it will take to do that.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Yes, a few years ago we did that with veterans groups and it was a mixed message approach, a deliberative democracy approach where we had panels of veterans that were asked before and after a point-counterpoint presentation on the use of health data and what was interesting is that when you sit down in a room and explain what happens and how it's used, attitudes do become more positive. But the concepts are sufficiently abstract and complex that you actually have to engage in that kind of dialogue to get good information. In the end it was a very balanced view that included folks asking essentially for a ... but the vast majority saying they wouldn't have used that option.

Christine Bechtel – National Partnership for Women & Families – VP
My sense is that also it probably depends on who the messenger is and who's asking the question. The fact that we saw such an enormous trust in health providers in this survey makes me think that the questions might be interpreted differently depending on who's asking them.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
We actually had someone from the health privacy project do the counterpoint issue and then we had one of our physicians do the pro for this, and I can send you that off line.

Christine Bechtel – National Partnership for Women & Families – VP
Thank you.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Larry?

Larry Wolf – Kindred Healthcare – Senior Consulting Architect
I can't give you a reference for this, but something stuck in my mind from a survey a few years ago with respect to the de-identified data, that people are very happy to make it available if they're asked. And they get really upset to find out their data is being used, de-identified or not, if they're not asked.

Christine Bechtel – National Partnership for Women & Families – VP
Yes, I can show you a survey where people say they have complete comfort with the data being used. So again, it's –

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Christine Bechtel – National Partnership for Women & Families – VP
Yes. Oh yes.

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Cool.

Christine Bechtel – National Partnership for Women & Families – VP
I think going forward this is something that is worth a conversation with –

Deven McGraw – Center for Democracy & Technology – Director
Exactly. Dueling surveys just suggest that more work is needed, not that one's ... than the other ... .

Christine Bechtel – National Partnership for Women & Families – VP
Actually, I think, Larry, that that survey was one that Dr. Weston did for the IOM, so we can follow up with you about that. But I think for our context here, we really did the survey because we saw, obviously, what everybody else is seeing in the environment around meaningful use moving forward and hoping that it's really delivering some tangible differences for patients in wanting to understand are those differences good or bad. So this really is very, very early in meaningful use. We did not ask is your physician a meaningful user, for obvious reasons, and so I think what we've done here is really a nice baseline that we can use elements of and are happy to feed back to the Policy Committee to see how consumers are really feeling the impact of meaningful use over the coming years. And so it will be a fairly long trajectory but it's another way to bring consumer voices to the table.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Go ahead, Marc.

Marc Probst – Intermountain Healthcare – CIO
Was there a consistent understanding of the respondents of what an EHR is, particularly with the paper-based folks?

Christine Bechtel – National Partnership for Women & Families – VP
Right. We actually gave them a definition, and I can send that to you, but we use an approach that was almost a ruling out approach, with consultation from our advisory committee, where we said some doctors keep your medical and health information electronically and others might use computers in the office but it's only for things like billing, and so we gave them a bit of an explanation and I think that helps.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Part of the good news in your survey, as you explained, is that fortunately they trust their doctors, they think that when you use this tool you can produce better quality and protect privacy better. Some of the caution that you highlighted was if we're counting on a demand poll from those who don't have a practice or hospital that uses an EHR, it may not be there according to this survey. So presumably that's one of the reasons ONC has the consumer health eHealth initiative is that it helps explain not only what happens when your healthcare uses these tools, but how can it benefit you directly, and you showed some of that as well for the folks who did have online access. So it looks like we have some work there and hopefully we can activate some of this demand.

Christine Bechtel – National Partnership for Women & Families – VP
Yes, I would agree. I would also add a caveat, which is that we saw some of the challenges among EHR respondents who have EHRs today who are still a majority, very concerned about breach, still saying it's a much higher impact on quality, but the fact that you still have more than a quarter of people saying it's no impact, or a negative impact, so it does get to the importance of raising all ... but including a focus on how we're really using EHRs, which is why we had these two samples, so that we could do not just a comparison of paper to EHR, but what's happening in the EHR space for consumers.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Any other comments or questions? Thanks for this update, Christine, on the perceptions of patients of EHR users and the paper record users. Then last up then before public comment we have Claudia Williams, as promised, updating us on the activities in the ONC on HIE and HIE strategy.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
I can see everyone came back from lunch maybe needing a little pick it up. Thank you so much for the time today. I've asked Mary Jo, I can go long sometimes, so she's going to give me a five minute warning to try to keep us ahead of schedule. If you remember, it was just last February, a month ago, I came with Doug to talk with you folks and I said that we were turning the order upside down by starting first with a slice of what we're doing in exchange, which is the State Health Information Exchange program, and we

talked about the approach, the strategies, the tactics, how we're doing on that, and I said we would hope to come back in March to talk more broadly about our approach and strategy. So thank you very much for having me back today. And while it's just me here, you'll see that elements of what we're doing are in work that all of you are doing, in work that our policy folks are doing around governance, and certainly around meaningful use, Doug's team, and the critical in importance standards work and interoperability work and on the program side, so while it's just me here, this really represents the collective work, not just of ONC but of all of you and of all of the folks that are out there implementing programs, adopting EHRs, and getting it done.

Monday we released a paper in *Health Affairs*. There will be a free link available on the ONC Web site, so we'll view that link. I don't think it was up as of yesterday. But what this paper –

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... a flurry of media activity around this paper, Claudia.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
You were tweeting yesterday about a different *Health Affairs* paper, so we'll take that up later, Farzad. Anyway, we wanted to get you copies but we weren't sure of all the protocol on that, so we'll just send you the link to it. I'm sure some of you have already read it, but the link will be up on the ONC Web site. We've made it available for free there. Really these remarks will summarize some of the key points we made there and we'll have plenty of time for questions as well.

I love this picture, partly because I love ..., but also because it just reminds us why we're doing all of this. We're doing all of this so that people can dance with their children at weddings and have a good quality of life and get care that they feel supports their needs and is coordinated. And I don't think Christine talked about some of the findings they had from a previous study, a focus group study with consumers, where one of the number one concerns was really feeling like they were stuck with the responsibility at the end of the day for care coordination and while they loved their doctors this was a pain point for patients, it's a pain point for all of us, it's a pain point for vendors, it's a pain point for the whole system, and we're just bound and committed to making it better. I like to look at this picture, and what a joyful moment that was.

Where are we today? It's not necessarily a pretty picture. We know that little exchange is occurring, and that's not just to say that there are a few RHIOs across the nation, it's to say that when you look at the kinds of transactions, the care coordination that we so importantly need to support patient care, it's not happening. So you'll see a chart in a minute, but we know from international survey data that about 73% of the time PCPs don't get discharge medication within two days, electronic paper or whatever, they don't get it, and only about 20% of hospitals have a mechanism in place that they're using to share clinical information electronically with other providers outside their system, so we have a long way to go. The situation, I think the basics of care coordination, the basics of making sure that when you refer a patient the patient information shows up, that visit is informed by information is not occurring. I also think it's been a Bespoke process. We have to hand craft the interfaces and it takes time, it takes effort, and frankly, nobody's getting competitive advantage from that time and effort. It's not like anyone wants to be spending all that time Certainly there's a lot of money, there's a lot of cost, there's a lot of time involved, and it's not helping anybody. So those are pain point issues.

I think on the hugely positive side we are just seeing a burgeoning of investments in exchange, and I think this was present for anybody who was at HIMSS where folks were talking with one breath about ACOs, about exchange, and about analytics, and when folks started to look at the new ...models, whether they're experiencing them yet or not it's patently obvious that they need to be investing in these technologies, and we've seen that in a tripling of the so-called private exchange entities from the class surveys in just one year. Related to that what we're seeing is not, and for those of you ... a very prolific Google Plus debate about the model of health insurance exchange, that was teed off by an article that Les Leonard wrote, and he posited that there was an architecture that actually ONC should be advancing and that somehow we weren't advancing that anymore. I think what the conversation rotated to is this real life situation where we have a lot of different models for exchange, there are a lot of approaches, there are a lot of investments being made, certainly looking over at Carl and we see EHR vendors that are providing

a lot of capabilities, we see national networks like Sure Scripts, we see local RHIOs, we see lots of different models, and all of them can be harnessed and are important to have be working in the right direction. We also see that, and I'll talk about this in a minute, that there are different exchanges and we need to enable all of them, so with an environment where there's low rates of exchange, where it's been a very tailor-made kind of Bespoke process, where we see a huge growth in investments and a lot of different folks wanting to participate as we go forward. Just, again, to frame what's at stake here, here are some of the facts, one in five Medicare enrollees are readmitted within 30 days. We see that feedback from consulting physicians happens about half the time, a little more, and that approximately 40% of outpatient visits involve a transition. So there's just a really huge body of opportunities here that I think we all want to grab on to.

Okay, so this is not acceptable. Where we are today is not acceptable. You shouldn't have to worry whether your information flows to the next point of care. Providers shouldn't have to spend time thinking about how they're going to make their systems work to do this. Health systems shouldn't have to worry about whether or not they can compete and do well and they'll share information, and vendors shouldn't have to spend tons of time handcrafting interfaces in ways that don't help their competitive advantage or not. So we need to make progress because it's going to help everybody and we need to take each of these items and really address it in a clear way.

Here's the trend we've seen in ePrescribing, and if you think about what's driven this trend it's, I think, several things, and this isn't scientific necessarily, but if you look at the environment, one is that there were a set of incentives and penalties, both within ... and also in Meaningful Use. We had a network driven by national standards, and importantly, we had a set of professional expectations that this is the way care was going to be delivered. I think that this trend that we see, which also remarkably and markedly is EHR driven, where it starts spiking, that's the EHR part, that's where it started going from a standalone system to an EHR, this is the trend we want to see for things like sharing a care summary across a transition or having lab results available, or being able to query a patient record. We want to see this kind of trend, so we're trying to put the pieces in place to create that kind of trend.

As we step back and say, wow, this is a big list, what's our job, what do we have to do with ONC? And it's clear that our job is not to build a network. It's clear that our job is not to designate a single architecture everybody must use. And it's clear that our job cannot be to pay for exchange for everybody with the money that we have, with the money that we've given to the states. So as we think about what our core government role is, it's really around reducing the cost of exchange. If you think about this as being a scale where exchange occurs when the value exceeds the cost and they're all enabled by trust, then our job is to help reduce the cost in a number of ways, through standards works, through finding ways to support the positive market development, through the HIE program jump starting needed services, it's to bring the cost down, so the $5,000 and $20,000 interfaces can be brought down to as low as possible, so make it easy, make it less complex.

And critically at the bottom is to increase trust, both from the public and from participants, and reduce the perceived risk of exchange, whether that's from a sheer privacy standpoint or from a business standpoint reduce the risk. We are fabulously happy that payment reform is really producing the business value and that our job is probably not to produce the business value. That needs to come from payment systems. And frankly, no amount of good standards and good intentions and trust is going to compensate for a lack of a reason to share, and that has to come both from public perception and from payment models that make that the right thing to do and the business right thing to do as well. So we are in a happy ... cycle. Obviously any one of these things could either go faster or go slower and we need them all to come and move at a nice, steady pace, but we really see our role as reducing the cost and complexity and reducing the risk so that exchange can occur.

As we, again, think about and we spend a fair amount of time talking about what is the role of government, what should we be doing, what's unique to us versus fun to do, we are not the innovators, we are not the participants, we are not the vendors, we are not the patients, what should we be doing? And one thing, and I think this has been manifested very much in this body, is setting the goal, is laying out the target and saying this is a puck we are skating to, and so the puck we are skating to is to have

exchange occur that improves patient care. It's not that there's a particular kind of entity, it's not that there's a RHIO in every community, it is that exchange is occurring to support patient care. And again, this concept of orchestrating that building, and this comes very much out of, for those of you that read it, the ULS principles of the Internet, is to enable scalable exchange to occur, but again not to be the builders of it. And finally, we have to do it with an eye to the patient every time.

Just another, and I'm sorry to pause so much on these things, but we think that progress will occur, not just in a phased way where there's an inevitable march from one model to the next, but in a way where both implementers and we on the standards side are biting off the next chunk of things that need to happen, in the words of Steven Johnson, the "adjacent possible," that we are taking modular building block approaches and that the things that we are working on will enable a lot of innovation, a lot of possibility in exchange. I'll get a little bit more specific about that as we go forward.

This year, taking this role that we have, taking the environment we're in, taking the challenges that lie ahead, what is that we really need to knit together to come up with that hockey stick curve that we saw for ePrescribing for care summary exchange and for lab exchange and other things. One thing, and we won't dig into the content of this that you will be commenting on as you go forward, but one is more rigorous exchange requirements in Stage 2, that we can't wait five more years, we have to have actual exchange occurring in Stage 2 Meaningful Use. Also that we have made a lot of progress on the exchange, the building blocks, the standards building blocks, and I'll walk you through the incredible rapid progress that we've made there, but there's still some missing pieces that we need to target this year, and we'll talk about those.

As we're looking at the real promise of a lot of folks exchanging across their vendor and provider boundaries, that one-on-one business negotiations isn't going to be a scalable approach to support that. So we, again, through governance, and that rule will be coming out shortly, I guess that's all I can say, we really, again, want to take that ... process and move it to something that's more scalable. And finally, the state HIE program, we will not be focusing on this to a large extent today, but the role of not being a single network in a state but really jump starting all kinds of services that support providers in meaningful use, so we're going to walk through each of these key targets for this year.

So just our famous ... I'd like to remind us that I think in the middle part of the ... it's about advanced care processes, but care coordination being really a primary goal. Again, we won't discuss this, but this is a big step forward in Stage 2 to require electronic exchange of patient transition information across vendor and provider boundaries. The concept that I should be able to move across the healthcare system and have my information follow me is nothing short of what patients already think is happening and expect, but frankly, we know is dramatically not happening today. And it is really wonderful, because when you talk to folks that are doing medical homes and ACOs and 3026 initiatives, all of them are saying how the heck am I going to do this, care coordination. This is really where I need to start, it's where I need to focus. I need to make the discharge process work so that one in five gets way, way, way down. So this is a beautiful place where there's a nice intersection between the work that we might be able to do to enable things and really frankly the pain points people are feeling out there in the healthcare system.

We talked a little bit about Meaningful Use Stage 2, and really it's building on the progress and investments that have been made in core building blocks, not just in the Stage 2 work and the S&I work, but frankly starting in Stage 1. If you think about what we did in Stage 1, and many of these have needed to be refined and constrained in implementation guides, but we were able to set forward a world where for the first time any certified EHR could do these things, could maintain a standardized med list, could report quality measures, could consume structured lab results, could produce and consume a standardized care summary, and these are the core foundation needed for exchange. Without this can you imagine what things would have looked like as we move to actually share patient information. It's a huge investment in Stage 1.

Then as we stepped back and thought about that 19% figure of hospitals that were able to share a care summary, it was clear that we needed to make progress on transport. And we now have two easily adopted standards for transport; one, the Direct protocol, and the other NwHIN exchange, which are both

incorporated into the standards and certification proposed rules, so needing a standardized way to send and receive information, and we have two national standards. For the first time in our country's history there's now a single, broadly supported data standard for patient care transitions that has been driven by the clinical contributions of people like Holly Miller and Larry Garber and other folks to say, as we as clinicians execute a transition, what is important to share, and that again is built into the proposed rules.

Let me actually go to this slide next, so as you think about these core building blocks, each of these types of exchange is very distinct. You need to send a lab result. You need to send a care summary. I need to be able to find information when a patient either is seen in a doctor's office or gets emergent care. I need to be able to aggregate and use my own information. But all of them rely on those same set of core building blocks, and that really points to the strategy of picking things that can be used and reused across these many different exchange types and will enable rapid progress across all three of them. But there are some things we need to focus on this year that will again make our work more scalable because we're not after having it work in one community, we're not after having it work in one state, we want this to work across the nation, and national scale requires some additional layers that we're really focused on, and we touched on these before.

One is directories, and there's been a lot of debate in the Standards Committee and in this group about, and, Paul, I look at you because we spent a good amount of time last year talking about this, but we do need to make it possible to look up a provider and make it so that if you're maintaining a list of providers you have a way to open that information up so others can find the folks that you're taking care of and that they're providing care. We need to think about what the slim set of requirements need to be, whether around data elements or on how you query, or even the requirement to say you need to open up your directory to make a query available. Relying on the Internet for exchange through things like Direct require a scalable approach to certificate management and discovery, and the initial Direct protocols called for DNS, but we need a consistently applied way to think about sending information using digital certificates, and there are a lot of layers to this that we need to work through. There's a clear pathway, but we're just going to have to work through at a policy level, at a technical level with the federal ... and others what that consistent approach is to allow for scalable certificate discovery.

And on the governance end, again, we need to find a way to allow for a common set of rules of the road on both the privacy side and on the technology side that will allow for folks to be able to participate together in trusted exchange without necessitating the one-on-one agreements. I know this group and others on the Policy Committee and Standards Committee will be looking at those rules when they come out, but what we're trying to do is have it all add up to being a much more scalable approach than what we've had.

If you think about these three models of exchange as all being necessary and all being really required for good patient care, still when you look at the bread and butter of what's needed to support transitions, we need a way to make it so that ubiquitously when you refer somebody, when you discharge somebody, when you send a lab result, that information goes to the next point of care, and that's an overwhelming goal for this year. On the side of query-based exchange there's some really fabulous work being done by the federal partners, by folks participating in the NwHIN exchange, but there remain, I think, a set of questions that people are asking around the policy framework that should be consistently applied and some of the components of the standards aren't as usable as people would like. So there's work to be done there.

Then consumer mediated exchange, we don't have a lot of use right now and there are some things in meaningful use that will really drive that forward, but there also are some layers like authentication and ID resolution that if we could come up with a pretty scalable way of doing that across different vendors could really make that drive forward more rapidly and I'm really excited that in the state HIE program we're convening five states just later this month who are going to be initiating consumer data sharing efforts over the next six months, whether for immunization records or for – Maryland, yes – sharing its own HIE data to finding a way to take repository information and actually do a patient match into a PHR, so really, really exciting work there.

I'm just going to touch briefly on the state HIE program. We spent a lot of time talking about it last month, but just repeating what we said, that our goal is to give providers options to meet meaningful use requirements, so as the requirements shift with Stage 2 we'll need to make sure that we're moving forward in lock-step with those same requirements as well. We don't think that the only way to do that is one state run HIE network. In fact, we see, and Farzad will be joining folks in California at the end of this week, there are 19 exchange networks in California, some very well established and some not, and so the challenge is to both create the investments in those different networks that will allow them all to move forward in a way that protects patient privacy and allows for exchange, but also to make sure exchange can occur across those networks. I think we talked last month about some of the key tasks and strategies we're seeing for the state HIE program, I won't repeat that, but they're shown here.

We are looking for rapid hockey stick progress this year on exchange. We're doing that by attacking on multiple fronts, from Stage 2 to governance, to the standards building blocks we need, to the state HIE program. We have a lot of confidence that we'll be able turn the corner this year and see really rapid progress, but it's going to require a lot of attention, not just to the issues that we talked about, but to some other emerging issues as well. And I just quickly wanted to go over some of those.

Secondary uses, I wouldn't say that we are going to kept back from rapid progress in some of the goals that we've set by this question, but at the same time the benefits to society, the benefits to clinical care, the benefits to patients will occur in part from our ability to describe when we can use information and have a consistent way of thinking about this and resolving some of the issues that I think Christine and Deven brought up. On patient matching, we do not have a conversation with a hospital CIO where this issue is not raised. It's a huge pain point, both within HIE environments and within hospital environments. There's been a lot of discussion about it. There's been some proposals that we take on a national patient identifier. We think as we look at that that there's some real work that needs to be done to describe are there thresholds that should be met, are there data elements that we need to specify, but in addition an underlying problem here is the quality of the data themselves. So what we see in countries like in Northern Europe that have adopted a single identifier, they still have data quality problems. So part of what we need to be doing as we implement exchange is getting the data better so the matches can be more accurate and having the protocols that match that as well.

On connecting exchange nodes, again, we see a proliferation of investments from the private sector in exchange, which is fabulous, but we need to be sure that we both, not just at a technical level, but really at an expectation and policy level, that those do not become wall gardens of information, which would serve nobody well. Frankly, I think the technology is not the leader in this. It really needs to be the policy expectation, the payment expectation that you should be able to transfer information easily across, and the technology is what follows and supports that.

In terms of tracking sources of information, particularly as we see in environments like in Indiana, where information is getting shared across five HIEs, multiple hospitals within each of those, and it's going to be critically important to be able to look at providence and look at the source's information, and unfiltering in search, and I had a great conversation with Larry and others over lunch, we need Google-y type ways of searching information. There's some very exciting work going on at Regenstrief about building a Google-type search engine on top of their repository, and essentially ranking the information based on how recent it is and whether it was reconciled and whether it matches the search term. We're seeing a lot of innovation within the technology space around this, but this is an area that I think we should really be looking at to make exchange much, much more usable.

On automating care coordination tasks, I think we all know of exchange infrastructure that's been put in place that nobody ever used and the concept that you had to get out of your EHR environment, you had to go over to portal, you didn't know when you should do it, it wasn't a realistic expectation, particularly at the point in time when a lot of that infrastructure was put in place, and I think there's been a lot of innovative thought about should you just print it out and put it in the record that you look at for the day. Could you, like Epic is doing, basically trigger the request for the information when the visit gets set up, are there ways to use EHR clinical triggers to shoot a piece of information out, but I think increasingly

thinking about the EHR based workflow and the clinical workflow that needs to support exchange is going to be important.

Finally, on liability, this is an interestingly, and not being a lawyer I'm looking at Jodi and Deven, there's a lot of different layers to this. There are issues around will I be liable if I don't search for the information? Am I liable for information that's incomplete that I got from somebody else? And frankly, am I liable if there's a breach that had to do with the information going to the wrong place? I don't think we have to take on all of that, but I think we need to much better understand the sets of issues that might impede progress based on concerns about liabilities.

Did I get my five minute warning? I did, so –

Mary Jo Deering – ONC – Senior Policy Advisor
To the minute.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
To the minute, okay, good. I'm going to stop there and would love to have questions or comments. I'd also love to give questions or comments about the paper, about what I've said, and please feel free to reach out to me directly or to Farzad or to any of us. Farzad, do you want to say anything?

Farzad Mostashari – ONC – National Coordinator for Health Information Technology
Not now. Maybe I'll wrap up at the end.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Thank you very much, Claudia. I think that was very clear. And every time you talk to us about the HIE we start to get more and more understanding of what's going on and how the office is directing things, and it's very helpful. Joe?

Joseph Francis – Department of Veterans Affairs – Associate Director, Health Services Research
Similarly, thanks, Claudia, and Tim Cromwell in my office is a huge fan of what you guys are doing and we're very interested in this work. One of the questions I had was an empirical one, do we know after a clinical encounter what are the natures and types of downstream encounters with other providers? It's one thing to base your measure of meaningful use on if I as a physician make a specific referral or transfer that I transferred information electronically. But in many of those cases where you're making an active hand off there are lots of ways of doing information transfer, including the phone. What I worry about, and I wonder where we are in terms of numbers, is how often does the patient show up in another physician's office or in another emergency room without the upstream provider being aware, in which case that would give you the extent of the kind of problem you're trying to solve. The only data that I'm aware of is, I think it was Bodenheimer that looked at the sheer number of different doctors that a Medicare patient saw and almost the impossibility of anticipating all of those connections.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
I think you raise a really good point, that we have to think both of the places where the providers are actively referring a patient and that there should be a management of that, and places where, frankly, there's emerging care and so forth. I don't have numbers. I don't know if anyone else here – I know we looked, for instance, at cancer care, and one study showed that cancer patients see 32 providers on average, most of whom probably at least have some connection to each other given the nature of cancer care. I think that's very much also probably more true for patients with dual eligibles and folks that have lots of co-morbidities and maybe are seen at the ER more. I don't know if anyone else has figures on that.

Farzad Mostashari – ONC – National Coordinator for Health Information Technology
I would totally add my voice to those who say that we need the full portfolio.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
Yes.

Farzad Mostashari – ONC – National Coordinator for Health Information Technology
We need the full portfolio. And I think that, as Claudia was laying out, a lot of the building blocks are going to be reused and reusable, and I think with the federal partners and others getting to the point where we can have not just the proactive and planned care and not just the consumer centered ability to gather the information but actually the ability to query and pull, whether that may be initially the conscious and clothed ..., and eventually may be the unconscious and otherwise.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
I'll send you a paper, I just read about the number of other physicians that a primary care physician contacts in a year, and it's something like 70 or 80. So it's just become –

M
That's the paper I'm referring to, because it's trying to take the paradigm and make it not physician centered but patient centered, where the patient goes ought to be where the information is available, rather than what a doctor decides.

Farzad Mostashari – ONC – National Coordinator for Health Information Technology
As we're talking to ACOs and those who would be ACOs, one of the most interesting conversations has been around the shared care plan and where really what you need is not just transactional flows of information, but ultimately you want to have at least some parts of the medical record that are truly shared. But in the standards work that we've done, and there is an S&I framework around this longitudinal care, one of the biggest difficulties is that there's not clarity around the clinical processes, the legal framework, the privacy aspects, who owns that shared care plan, who can change what parts of it and so forth. And there's some very different ideas, whether it's no health plan centered, whether it's the patient or their proxy centered, whether it's a social services agency, or whether it's a group of providers, and I think before we can get to the technology part of enabling that sort of shared care plan we need some working models outside of the new delivery networks, where there actually is that clinical and workflow concept put in place.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
... Paul, Neil, Larry, and Carl.

Paul Egerman – Software Entrepreneur
Great. Thank you, Claudia, it was a very helpful presentation. I had a question about your slide number 7, which is where you show the number of ePrescribers. And it's just a very interesting slide, so a couple of questions on it. The first one is, where did that data come from, in other words, where did you get the data, what was the source of the data for that?

Claudia Williams – ONC – Acting Director, Office State & Community Programs
SureScripts.

Paul Egerman – Software Entrepreneur
Okay. And so my next question is, with ... we talk about the level of adoption or usage of information exchange, and when you showed the slide you talked about lab ordering and lab results. Do we have any data on usage of the number of laboratory result transactions or physicians or users, do we have data like that, broken down over multiple years that we can looking at to see where we're growing or where we're not growing?

Claudia Williams – ONC – Acting Director, Office State & Community Programs
We've been spending a lot of time actually, Farzad and Mike ... and I, and others on the team, really trying to extract both build in questions to the national surveys that we have, like the HA survey and the NCHS survey, but also looking at the need, particularly on lab, to much, much, much better understand the market and what's going on. So we will be initiating additional research work in that area this year,

but I think soon we'll be sharing some of the results we do have from the HA and the NCHS. NCHS is the NCHS physician survey and includes a lot of very interesting questions around engagement with information exchange for specific tasks. What you'll see, though, to make the questions understandable to every adopter you have to dumb down the questions around what system are you using? We would like to ask if you're using LOINC, but they're not going to understand that, so there's a little bit of softness in the numbers, but I think they're going to really allow us to build a baseline that can be useful over time.

Paul Egerman – Software Entrepreneur
I guess I have some comments about how you're gathering the data, but –

Christine Bechtel – National Partnership for Women & Families – VP
Maybe we can –

Paul Egerman – Software Entrepreneur
My point would be that having this data can be very important. What everybody's fond of saying is we're not doing well enough with information exchange, but I guess I would just like to have some objective data that says this is how we're doing and maybe we're doing 10% better than last year, or 50% better. I just don't have a really strong sense as to what is happening in the real world, other than this constant thing we need to be doing better.

Farzad Mostashari – ONC – National Coordinator for Health Information Technology
I completely agree. We like to be data driven, and our sense is that there is going to be this hockey stick curve around exchange, it's going to be very hard for us to show it absent a single national network, so those are going to be some of the things that we want your help on, is there some existing data source, profound data that we can go to and look at? Should we be asking the EHR vendors to volunteer, if they want, their monthly total transactions that been sent and add them up? If we're doing governance around HISPs should we ask HISPs to report their total transaction line? We can't be doing Bespoke studies to collect information with this granularity across the U.S. It's got to be sound data. The question is, where is that data found? And we'd love your thoughts on that.

Paul Egerman – Software Entrepreneur
Thanks.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Neil?

Neil Calman – Institute for Family Health – President & Cofounder
In New York there's a major effort to roll out health homes, and that's brought a whole new topic to the table, which is that the integration that we've always been talking about is between healthcare and providers, and now we're talking about people that have completely different types of systems and everything and needing to coordinate care. And what New York State's looking at are the most costly, sickest people, and it turns out that the care coordination we need is not just between health providers but between housing providers, and mental health providers, substance abuse providers, homeless shelters, places that have their own different types of systems and their care plans are being developed across these models.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
Can I come visit next week?

Neil Calman – Institute for Family Health – President & Cofounder
Yes, please. Actually, you can come to our meeting and tell us how to do this.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
Larry will.

Neil Calman – Institute for Family Health – President & Cofounder

And just like with the HIE rollout, we're rolling out county specific health home models, each county is developing its own HIT committee to figure out how they're going to share information, and it just seems to me like the farther we go down the road without really a national vision of how this is going to happen, the more deeply invested people become in their local solutions and the harder it's going to be to make this happen. That's my statement. My question is, and I guess this is both for you and Farzad, so I still don't have the vision of what you think is going to happen at the end of this game. We're developing Direct, we're developing exchanges, we're doing all of this stuff, what does the end look like, it creates a national system where people are going to be able to transfer information given the interference with all of the state policies and things that don't agree with one another and all this stuff, what are you envisioning is the end game, or are we just playing it out to see what happens? With a little bit of a view of what we think we can do in the next year or two, but without really a vision of what we think the end game is going to be. Do you understand the question?

Claudia Williams – ONC – Acting Director, Office State & Community Programs
Can I just speak to one piece of that and then Farzad can ... . Let's just start with Direct, and I want to tell the story of Direct that's not the technology but the potential. So we like to say that a standard like that, that relies on the Internet and relies on .... means that I can implement it and you can implement it, and you can implement it, and if we get the governance right and if we get certificate of discovery right and if we get the standard right –

Farzad Mostashari – ONC – National Coordinator for Health Information Technology
It just works.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
It just works. Now I may still need to know your e-mail address, so that's where the directories come in. I may still need a way to discover what services or what content you can – I can send you structured data, I can send you unstructured data. It doesn't allow me to query, no, but imagine a world where every doctor could send a patient, could send another doctor, could send a hospital a CCD document that includes structured data. Imagine that world where you didn't have to pre-negotiate that your vendor and my vendor have to agree that we're going to do that little piece exactly the same way. Imagine a world where it's low cost. Now, that is not your end game. We still need ways to find information when patients come in for emergent care. I guess a hypothesis is that that requires a higher level of trust that's likely to be developed in a community, maybe in a state, in a state like Vermont or maybe Delaware, but where we see the trust of navigating the policies and navigating the technology it's been at a regional level or even at an ACO level or at a unit that's a little bit smaller.

Farzad Mostashari – ONC – National Coordinator for Health Information Technology
Can you go to slide 18? Neil, I remember you telling the story about how, "Do you know what's a really good information exchange tool, the fax machine. The emergency department last night called me and I had a patient in the ED and I logged in to my system, I looked him up, and I faxed them the face sheet from the record that had all the information they needed." Do you remember that?

Neil Calman – Institute for Family Health – President & Cofounder
Yes. And that's ... .

Farzad Mostashari – ONC – National Coordinator for Health Information Technology
That's a lot better than nothing. And so I think the vision of the future is not that there's going to be one size fits all, one method, the kind of house everyone's going to have of varying sizes. It's going to be a little messy but very liquid and fluid, where there's going to be lots and lots and lots of different means for information to go where it needs to go, where there's going to be ubiquitous, it just works, the emergency room calls you and this time you say what's your address, and you type it into your system, and they get not just a fax that maybe goes to the wrong clinician or maybe it can't be read, but they get an encrypted file that they can actually import data elements into, into their record. When that patient leaves that hospital you're going to get back a secure message with this CCD and the test procedures and the images of what they did in the emergency room. But also we have those affinity data sharing networks, so maybe you're part of a community health center network, maybe you're part of a local RHIO, maybe

you're part of an EHR sponsored information exchange network and you can query within that because you've developed the trust within those networks. You trust those people. You know those people. And when you need a record they don't have to even ask you, they just pull it from your records, because you developed that trust over time and you let them just open up your records and pull information from your records with your patient's consent. And some of your patients will actually say to you the hell with all you guys. Give me my damn data and I'll share it with whoever I want to share it with. And that's good too.

The vision that we have is that we have some common building blocks around standards, around directories, around trust, that enable a whole host, an explosion of different kinds of ways in which information can be shared and ways that it can be understood according to whatever level of trust people have and however they want to be engaged in that exchange activity. It is not as simple, I wish I could say here's the vision of the future, Neil, and go tell those people in New York that they've got to build this. We don't have that kind of country. We don't have that kind of system. And frankly, I've got to tell you, the risks of that kind of approach are really, really high. And people talk about it as being on a trapeze act and you either grab the bar or you slip and fall to your doom. That would not be prudent of us as a national strategy to put our eggs in one trapeze bar grab. We have to have a lot of different irons in the fire that enable a whole host of innovative approaches to exchanging information according to different business models, according to different trust levels, and according to different preferences. So I'm sorry if it's not as satisfactory as if I had said, here's the blueprint for the house, but it's more of a here's the city plan and zoning laws.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Let me just follow up with a comment. I think that that message is really important to get out there, because I think people still think that somehow at the end of this game you're going to be able to put something in and get something out from anywhere. It's the old you sprain your ankle in New York and can you get the orthopedic records from California, and you query it. And years ago when we started this, like three years ago, we weren't as clear, I think, as you are now that this is going to be a vision that's going to come from a very diverse set of solutions. I think that there's still an expectation out there in the public that somehow this is all going to converge at some point, and what you're saying I think is a really important message, and I think it basically adds credibility to the work that everybody's doing now, not to say this is just some temporary thing that's going to happen until the big thing happens, but that actually these are the solutions that are being developed. I don't know, to me those seem like really different and important messages.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
I know none of you have time, but the debate that circulated around last ..., it started up on Google Plus, was truly amazing, in part because it was 42 pages long, but really did go to a lot of these very same points about it's not tied up in a bow. And I spoke to a couple of ex-governors at HIMSS, who, there is still the conception that if we can just do this at the state level we'd be done and gone, it would be finished, and we've seen efforts to try to take things on at that scale and in a way that doesn't really build on business relationships and build on trust, I mean, you just have to look at the U.K. to look at the example of that, they often really spectacularly fail. And we wish we could wave a wand and say that it wasn't so, but we're in the world we're in and we're going to make progress, and we are making progress.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Larry?

Larry Wolf – Kindred Healthcare – Senior Consulting Architect
Maybe I don't want to jump into this shark pool here, but I have a few things to say. Let me back up to something I don't think is controversial at all, and I've gotten a lot of very interesting responses from clinicians when we talk about shared care plans, because they typically have a light bulb experience of, oh, I've been worrying about getting all the data and making sense of it. If I actually had the care plan I would know what the intention was. And if I know what the intention is, then I can figure it out. So there's more to healthcare than just having the data, and the same way we've been having all these discussions, there's not just one model, and clearly there are some times when all you need is the data. But I was having nurses go to me, oh yes, that's what I want to carry around. Forget all of these lists and med lists

and data things, I want the plan. If I had the plan that would make so much sense, I could then organize what happens and I can communicate clearly.

Okay, I want to put in a plug for the IMPAQ work in Massachusetts, partly because I'm going there tomorrow so I hope what I'm seeing is as great as what I hope to see, because I think that represents a community coming together to figure out what do care transitions look like in this community. And when I get a patient what is missing in the information that was sent to me, which gets me into a little bit of our shark infested waters here. I think there's something basically broken in the push model, and this is not just in healthcare. So think about your e-mail inbox. I recently went through the exercise of all the news feeds I get, I turned them all off and said I don't want the news coming to me in e-mail anymore, I'm going to go to RSS reader and when I choose to read them they're there. I've heard docs say, don't send me the lab results because they pile up somewhere. Don't send me alerts every time there's a lab result, especially if it's normal. I don't need to deal with it. But when I open the patient chart I want to see the new lab results, because now I'm in the context of that patient. So even in the push model there's a pull piece.

I go back to Claudia's data about 73% of the time PCPs don't get discharge information. Now, I know there were qualifiers around that, but I take that as statement that the push model is broken. We're not good at pushing stuff. Even in the best of worlds, even if I could 100% of the time send you the stuff I said I would send you, a lot of the time it's not the stuff you need, and this is putting on my post-acute hat, the care that's delivered in post-acute care is different from the care that's delivered in acute care. We already know the diagnosis. We don't need to work out what the diagnosis is. The patient is stable. That's why they're moving to post-acute care. We're working on rehab. So I need to know all the stuff about rehab. I need to know enough about the acute care that I don't get in trouble and exacerbate something that just got fixed. I'm mostly working on rehab, so my needs are inherently different than the sending provider's perspective on the world.

I suggest that every time we advocate for a push piece that we also look at the pull part, and that we start asking how do I make the pull piece actually meet my needs, because I'm the one who now has the need and we like to talk about the ED examples, it's very dramatic, but I like your, how about when the patient has clothes on? How about if I'm there, I know where I've been, I can give consent, I'm here, stop arguing about whether you trust the sender. Trust me, I'm the patient. I think we can really flip the trust issues if we look at it from a pull perspective of I show up for care, where have I been? And discovery models that at least help clarify, oh, you know, I forgot the name of that doc down the street. Yes, there's that list. Yes, that's the one.

Farzad Mostashari – ONC – National Coordinator for Health Information Technology
Larry, I will completely agree with everything that you said except for one thing, which is we don't need to make a choice. And I think a lot of the discussion around information exchange, for whatever reasons, has been people getting in their armor and hammering on each other about push or pull. And I'm not going to engage in that because we need all of them. Of course we need all of them. And the question is, how can we establish the quickest path to the most comprehensive enablement of all forms of exchange? And I don't know if Doug Fridsma's on the call, if he could comment on what is the building block approach to that mean and what are the reusable parts, whether you're going to do push or pull or consumer mediated, how can we make building blocks that can be reused.

Larry Wolf – Kindred Healthcare – Senior Consulting Architect
I agree as a technologist that often as an underpinning level those distinctions disappear. And I think some of the heat in this discussion is that often these models are presented as take it or leave it, this is the model, you're either going to use this one or not. And a lot of the concerns are maybe peripheral, but they also represent the investment that people have made in their current model, and I think the comment with Neil about we need to shift from this, "what I'm doing today is temporary and I'll move to the permanent," to "what I'm doing today is permanent and it will evolve."

Farzad Mostashari – ONC – National Coordinator for Health Information Technology
That's right.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
Can I –

Doug Fridsma – ONC – Director, Office of Standards & Interoperability
Farzad, I am on the phone here. It's been a great discussion. If I can comment, I like using analogies that what we're talking about is communication between patients and providers and between providers that are caring for patients. And when we communicate in other parts of our life, when we communicate with our family, sometimes we pick up the phone and we call them, sometimes we use our cell phone in the car, and sometimes we post the information to Facebook and let them just find pictures of the most recent vacation. Sometimes we might send them an e-mail message, and sometimes, rarely I suppose we might write them a letter. The thing is we don't talk about how we communicate with our family as beginning in one way and then we gradually evolve to more complex ways of communicating with our family, we pick the right tool and the right approach that suits the urgency, the need for synchronous or asynchronous communication, whatever it is, we pick the right tool. And I think we have to expect that among healthcare communication that we will have that same kind of heterogeneity across the board and that at the same time, in the same locations we are going to have push waves and pull waves and probably waves that we haven't even thought of yet in which we can share information.

And so whenever the future is uncertain and exciting and has lots of potential to go in different directions, you have to break it down and create the building blocks, or your portfolio of things that work, and you say, well, what are the fundamental things that we need to do? And so I like to say we have to structure meaning so that we standardize the meanings that we have in codes and value sets and vocabularies, we have to standardize the structure of the information so that is our standards and our messages and things. We have to standardize the security that's foundational to everything. We have to standardize transport and the services. What those building blocks are will evolve over time and how we choose to use them will evolve over time. But I like what Farzad said about this being more about city planning than about building a skyscraper, if you will, because what we're trying to do is lay the foundational pieces, the infrastructure, the roads, the electrical systems, navigation systems, the communication systems, so that we have this rich way of moving around and getting the information where it needs to be. So that's probably the right analogy, and I think we will, of course, need the help of the folks around the table and the folks in the public to help guide us as we think about what should go into that portfolio, what should come out, how we can best leverage it, and how we can innovate around it.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
Can I just make a plea, which is, because I look around the room and think about the work each of you is doing, I don't think we've shared how this is working at a clinical level. So when I think about the IMPAQ work and the fact that what they're doing is they've started out and for a month they're going to share paper information so they can figure out if they're sharing the right information and to build the relationships between the dischargers at the hospitals and the intake workers at the long term care and home care and all these other places, so I feel like a lot of attention needs to focus now on how does this work for a clinician who's making decisions and is busy. Is this a clerk's work? Should the clerk be going off and pulling the information back and putting it in the record? Should this just be automated into the record when a CCD comes in? Do I want to have it integrated automatically, or do I want to wait and go look at it and compare the notes?

And the tasks and the workflow, I think about all the work the RACs are doing now around adoption, and we need to really dig down deep and look at when should you query, over what circumstances, how do you parse information when it's conflicting or ... CCDs, how can you make a push to be automated, how do you make sure the information comes back, like with the Med Allied stuff. And so to think that a standard like Direct, or a standard like the exchange standard can answer these questions about how to make this be meaningful in a clinical setting and be used at the right time, and I know many of you are working on that, so just please share that with us so that we can have that benefit the work we're doing in our implementation, because none of the questions around standards and policies are going to answer what I'm sure, Neil, you're asking, which is I'm a clinician, I'm in my busy clinic, I'm taking care of a diabetic patient, what should I do when and how is this going to be useful to me in my patient's care. So I

feel like we're at the very beginning stages of that across most of the American healthcare system, and we need help communicating with docs about the potential, we need help working on the workflow, we need to bring this into the EHR, we need to have the studies that show when you trigger the information at this point it really makes a difference and so we just need all of you to help on that.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Carl?

Carl Dvorak – Epic Systems – EVP
First off, you've got amazing intensity for this. I think of you as the Energizer Bunny of interoperability.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
Thank you, Carl.

Carl Dvorak – Epic Systems – EVP
It's amazing. ... comments... the notion that policies shouldn't follow technology here, I think is an important one and yet I think it's also important that policy construction around an inadequate technology base can also lead to a poor outcome. I think we just need to accept that we're in a rapid learning cycle and make sure that both policy and technology and standards keep up. I know ONC has put its heart and soul into the Direct project, and I think it's a good defined step forward. But I'd also strongly advocate for the NwHIN exchange protocols to receive just as much, if not more, attention, because although it's slightly more sophisticated, and it is only slightly more sophisticated, it seems to have the magic that would get us towards that hockey stick, that answers the poll question, and not only answers it, but answers it elegantly and has the potential to provide for a simple directed exchange, where I'd ask Claudia where she was seen, she would tell me, and I would put that in and I would go there and look, or maybe have a query record locator service that a community might offer. It has that potential and I think that that's where we should really focus some serious energy because we really are within reach of that and not just for the five to ten year horizon, I believe in the two to five year horizon we could make major strides forward with that, and I was very happy to see the exchange trying again to reestablish itself, and I'm a strong advocate for put energy from ONC behind that.

The second comment I had is I remember the heady days of enterprise level provider directory and individual level provider directory discussions, and I would again strongly advocate we don't fall into the abyss of trying to solve the individual level provider directory when we could make massive strides forward on interoperability by simply solving the enterprise level provider directory, right down to being as simplistic as when you register for meaningful use incentives you put your EHR ID and IP address in here, and that's how we'll direct transactions for both exchange and for the Direct project. It's a very soluble problem and we don't need to solve individual level provider directory, and it's also not a throwaway problem, as we do come through with individual level we'll need to attach individual's entities because that's how life works. It's not a throwaway piece either, so I'd like to make sure we do that. I do think we should be careful, one thing I noticed in Meaningful Use Stage 2 is that we were beginning to define terms like "transitions" structurally around capabilities of the Direct project, and you could see that the transitions that were being included and not included mirroring the Direct project, and although I think that's okay as ..., we should make sure that people who do more advanced forms of exchange also get credit for those in their total, because in fact if they are managing patients across enterprises they really should make sure and get credit for that and not have to comply with an artificial definition of transition or participants in transition. That's it.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Good, anything else? This has been a lively and vigorous and very informative discussion, so thanks again, Claudia, and we look forward to you at future meetings.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
Yes, I'm sure you want a break for a couple of months.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO

And we know you can anchor the last sessions too.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
Paul, we'll talk later.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Oh, did you want to close this up?

Mary Jo Deering – ONC – Senior Policy Advisor
... .

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
Very good. Public comment now?

Mary Jo Deering – ONC – Senior Policy Advisor
And if you would open the lines for public comment.

Operator
(Instructions given.)

Mary Jo Deering – ONC – Senior Policy Advisor
Caitlin, we're going to begin with people who are in the room. Please identify yourself and you have three minutes.

Tom Bizzaro – First DataBank – VP Health Policy & Industry Relations
I'm Tom Bizzaro. I'm a Vice President of Health Policy & Industry Relations for First DataBank, and a pharmacist. I would actually like to make these comments as a pharmacist. I know I can't divorce myself from my position with First DataBank, but I want to talk from personal experience.

I think in pharmacy we saw many years ago that the use of a computer to provide clinical and descriptive demographic information for a patient was of great value. When I started in pharmacy the patient record was on a 3x5 index card that we actually kept in a shoebox in the back of the pharmacy and now we have very sophisticated pharmacy management systems to provide support to the pharmacists. I think that in the complex world of total healthcare, if we had common standards, directories, vocabularies, repositories, registries, and exchanges then we will figure out how to exchange that data, what data we have to exchange, and we'll have business and partnership agreements that say what type of data we need in those situations. So the discussion I heard today that was talking about how are we taking these steps and how are we going to figure out what information is necessary, I think if we do those things then we will figure out the rest of this. And I have to say after 40 years in pharmacy that I am seeing now progress being made that I probably could not have imagined ten years ago, and I compliment this group and all those other folks who are working on this issue. Thank you.

Mary Jo Deering – ONC – Senior Policy Advisor
Is there anyone else in the room? Okay, Operator, do we have any comments on the phone?

Operator
Yes, we have a comment from Chantel Worzala.

Chantel Worzala – American Hospital Association – Sr. Associate Dir. of Policy
Good afternoon. Thanks so much for a very thoughtful discussion today. I just had a couple of points I wanted to raise. First, I really appreciated the conversation about new ways to think about quality measures that are actually derived from the data that we collect in the course of care and finding a way to develop new approaches to quality measurement that's providing a platform of measurement tools rather than hard coded measures. Medicare is moving very quickly to performance based payment models and so it's imperative that we have eMeasures that are valid, reliable, accurate, and actually feasible to calculate. And at least for hospitals the experience in Stage 1 is that we really aren't there yet, and I think

we need to move from getting started in Stage 1 to really getting it right in Stage 2 and that may actually require taking a step back from the number of measures that we want to generate while we get the infrastructure and the measures right. So I just want to emphasize that that line of conversation is very much worth pursuing.

I also want to urge both ONC and the Policy Committee to systematically evaluate the experience from Stage 1. This is a hard escalator for folks to get on. You can see in the back of the CMS proposed rule that in the first year of meaningful use only 4% of physicians and 8% of hospitals successfully received Medicare incentives for meeting meaningful use. I think we can all agree that that's a slower start to the program than we really need. Yet on the other hand, the Stage 2 proposed rule lays out an approach to implementing the penalties that's accelerating when providers need to meet meaningful use to avoid penalties.

Sorry for the mixed metaphors, but the notion of a two year look back for assessing penalties on meaningful use just shortens the runway for physicians in hospitals to actually get on the escalator. And I won't go into the details, but there's very sobering data in the IMPAQ analysis for the rule that really when you dig into it shows that CMS expects the majority of physicians to face cuts under the Medicare program through meaningful use. And I think from a policy perspective we really need to dig in and understand how those cuts are likely to have disparate impacts, particularly because those with the fewest resources, rural hospitals, physicians providing care in inner city settings are perhaps those most likely to be cut and we need to learn from that Stage 1 experience as to who those folks are and how we can best help them to get on board.

Also just thinking about Stage 1 to inform Stage 2, I really appreciate the difficulties and the hard work on promoting exchange. But I did notice that in Rob's presentation 93% of hospitals deferred the summary of care record objective in Stage 1. And as I talk to hospitals it's not due to a lack of interest, but they don't actually have a way to conduct the exchange. So we've got 93% saying, boy, that's too hard for me to do today, and yet the Stage 2 rule proposes to up the ante considerably, both on the type of data that's being included in this summary, and also the performance threshold for having to do it. I think there's a lot of work to be done to dig in to say, well, why didn't it work in Stage 1 and how can we use that to support us in moving forward in Stage 2? Thanks so much for all your hard work and continued efforts to move us all forward. It's very appreciated.

Mary Jo Deering – ONC – Senior Policy Advisor
Operator, are there any other comments?

Operator
We have another comment from Carol Bickford.

Carol Bickford – ANA – Senior Policy Fellow
Carol Bickford from the American Nurses Association. I appreciated the update from CMS on the meaningful use NPRM and wonder if those slides will be posted to the Web site for the meeting. They weren't there prior to the presentation. The second item is thank you to the National Partnership for Women and Families for their study and their presentation today. We look forward to digging into the study results and strategies as we move forward as a ... for putting the "I" in HIT. Thank you for that work and making it in the public domain.

Mary Jo Deering – ONC – Senior Policy Advisor
I believe we have another comment? Robin Raiford?

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... .

Robin Raiford – Allscripts – Executive Director, Federal Affairs
Hi. Thanks. This is Robin Raiford from the Advisory Board. I just want to add to the enthusiasm of the day and the rich discussion, and with as much enthusiasm as Claudia has for IHE, I put all that

enthusiasm in Excel and did make another “Meaningful Use the White Board” story poster that’s going to launch out publicly next week, available for anyone to want to go ahead and download a pretty large poster that is a summary of the final rules for ONC and CMS and also the NPRM and putting it all together. Some of you saw it a little bit at lunch today when I was there. I don’t have the final one but I’ll bring it next week. Please know I’ll send it to Mary Jo, I don’t know if it can officially be linked to anywhere since it’s not a federal document, but anybody can find it just by Googling Meaningful Use White Board, and you’ll find it.

Mary Jo Deering – ONC – Senior Policy Advisor
Any other comments?

Operator
We have no more comments at this time.

Paul Tang – Palo Alto Medical Foundation – Internist, VP & CMIO
I want to thank everyone. Just a little prelude to the next meeting, the Meaningful Use Workgroup will present our draft response to the NPRM to take in comments from the full committee before going back to working again and then coming up with a final for approval in May, just in time for the response deadline. Thank you, everyone, for this wonderful and productive meeting. We’ll see you next month.

Public Comment Received During the Meeting

1. Regarding the flexibility of CQMs, which are currently “hardwired” in the electronic record, making changes challenging with timeliness and with costs. The need for the system to respond more quickly to the demand of change would be to have standards: HQMF for the query and QRDA for the report. The context would be aligned to the work of the S&I Framework’s Query Health Initiative in the ONC. This would save time and money for the provider, and likely facilitate adoption among the stakeholders.

2. Are you working to get the largest EHR vendors like Epic (1 in 4 providers use it) to open up their patient portal? The problem isn't a technical or governance one but how docs are not reimbursed for exchange with others or patients

3. Suggestion - It would be great if they could read the questions in at the end of the call instead of asking us to call in

4. As a building block, how does the SMTP of Direct support query?